

GENERAL MANAGEMENT PLAN

ASSATEAGUE ISLAND NATIONAL SEASHORE
MARYLAND/VIRGINIA

Denver Service Center
National Park Service
U. S. Department of the Interior

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SELECTION OF AN ALTERNATIVE

The National Park Service, in cooperation with the U.S. Fish and Wildlife Service and the Maryland Park Service, produced an Assessment of Alternatives for Assateague Island National Seashore that included Assateague State Park in Maryland and Chincoteague National Wildlife Refuge in Maryland and Virginia. The document was released in June 1978 and distributed for public and interagency review according to NPS policy. Following the review, the three agencies selected a set of alternatives for their respective areas of the island, and a report, Preferred Planning Alternative, Assateague Island Comprehensive Plan, was submitted to Congress (September 1979) as required by Public Law 94-578 (see appendix A).

The Selection of an Alternative documents only the NPS selection of the preferred alternative, which is a composite of the three alternatives presented in the Assessment of Alternatives for Assateague Island National Seashore. The three alternatives ranged from maximum to minimum levels of visitor use and development. Alternative 1 in all categories represented the highest level of visitor use and development, alternative 3 the lowest level. A summary of the alternatives and the rationale for their selection or rejection are presented by major categories in the following section.

ALTERNATIVE CONCEPTS

Alternative 1 provided for maximum recreational uses consistent with resource carrying capacities and quality visitor experiences. This concept was rejected because the level of facility development, protection, and maintenance proposed would be inconsistent with NPS policies for managing dynamic barrier island systems.

Alternative 2 proposed maintaining existing traditional recreation on the island. The proposals under alternative 2 were selected but slightly modified to allow for redesign and minor expansion in certain areas in order to improve the visitor experience, expand access, and allow for more efficient management.

Alternative 3 called for minimum development, low impact, and primitive management concepts. This alternative was rejected because implementation of the proposals would significantly change the character of visitor use and greatly reduce the variety of traditional recreational activities.

NATURAL RESOURCE MANAGEMENT

The proposals under alternative 1 were selected because they provided greater flexibility in the management of natural resources and accommodated existing methods of access for recreational purposes. However, permits for pipelines crossing the island would not be recommended because of the potential for environmental degradation; this policy on pipelines was derived from a proposal under alternative 3.

Alternative 2 contained the same proposals as alternative 1 except no offroad vehicle (ORV) use would be permitted in the primitive zone. This proposal was not selected because it would preclude existing methods of access for recreational purposes such as fishing, hunting, and clamming. In addition, research to date has not demonstrated definitively that ORV use in accordance with existing regulations results in significant environmental impacts.

Proposals under alternative 3 included wilderness designation and limited resource management options. This alternative was not selected because of long-term retained rights of individuals within the proposed wilderness boundary and because it would preclude existing methods of access for recreational purposes. When this area is free of retained rights, wilderness designation will be reconsidered. This proposal also lacked mitigating measures for the westward erosion of the north end of Assateague Island.

CULTURAL RESOURCE MANAGEMENT

Cultural resource management proposals were the same for all three alternatives except for the treatment of the Assateague Beach Coast Guard station on Toms Cove Hook (determined eligible for inclusion on the National Register of Historic Places on January 18, 1980). Each alternative proposed identification, evaluation, and protection of all historic and archeological sites on NPS lands. An archeological survey of Assateague Island will be completed.

Alternatives 1 and 2 contained the same stabilization/preservation proposals for the structures of the Assateague Beach Coast Guard station complex. These alternatives differed in the proposed uses for some structures. Alternative 2 was selected because it proposed protection of all structures and allowed the greatest flexibility in their use.

Alternative 3 proposed minimal maintenance and no adaptive use of the Coast Guard station except to adaptively use the observation tower. This alternative was rejected because it would not provide adequate protection for a National Register property and less than optimal adaptive use.

VISITOR USE

The maximum level of visitor use and the greatest variety of recreational activities through increased capacities and new developments were proposed under alternative 1. This alternative was rejected because the proposals would violate NPS policy for this level of development in sensitive environmental areas. Also, public response overwhelmingly opposed major increases in visitor facilities on Assateague Island.

Alternative 2 proposed maintaining existing recreational uses, with some redesigning and upgrading of existing facilities and in some cases providing new facilities. Alternative 2 was selected with the provision for an increase in the day use beach capacity of 1,400 visitors per day at Toms Cove Hook. However, the National Park Service will provide no

increase in parking but will encourage the development of a privately operated shuttle bus service from the town of Chincoteague. This increased capacity is recommended on the basis of trends in visitation levels in the hook area in recent years. This increased capacity may be provided with minimal additional impact on the resource.

Reduced visitor capacities through removal of campgrounds (except for hike-in, canoe-in, and boat-in campsites in Maryland), prohibition of vehicles in designated wilderness, and reduction of visitor-oriented programs were proposed under alternative 3. This alternative was rejected because visitation trends and public response supported maintaining the traditional trends and levels.

FACILITIES DEVELOPMENT

Significant increases in capacities of most visitor facilities, such as campgrounds, lifeguard-protected beaches, and parking areas, and the addition of new facilities, such as parking areas, campgrounds, boardwalks, concession buildings, hunting blinds, boat docks, and beach trains, were proposed under alternative 1. This alternative was rejected because visitation trends did not support the level of increased capacities proposed, because of the potential for significant environmental impacts, and because of public opposition to major increases in facilities on the island.

Alternative 2 proposed maintaining existing facilities at present capacities with some upgrading, redesigning, and adding new facilities that included a visitor use site in the causeway area. Generally, this is the selected alternative. The proposed moderate improvements are supported by trends in visitation levels to the causeway area and by increased demand for bayside activities, such as crabbing, clamming, and canoeing.

Alternative 3 recommended removal of NPS campgrounds and lifeguard beaches. Only canoe-in and hike-in camping would be allowed on NPS lands. A wilderness information/orientation center would be constructed, and the state park boundary would be expanded 2,000 feet northward to accommodate increased beach use and to protect the dune system. Camping, amphitheater programs, and cruise and safari operations in the Toms Cove Hook area would be eliminated under this alternative. Alternative 3 was rejected except for the state park north boundary expansion to be negotiated if visitor demand for day beach facilities warrants it. The reduction in capacities that would result from implementation of this alternative was strongly opposed in the public responses.

ORV BAYSIDE ACCESS

During the review period of the Assessment of Alternatives, few comments were received concerning bayside access for ORVs. Following the publication of the Preferred Planning Alternative that recommended elimination of any ORV access to the bay, a considerable amount of opposition was voiced by local ORV organizations (AMSA) and national

groups. In addition, conservation interest groups voiced support for eliminating ORV access to the bay.

Currently, ORVs are used for access to the bayside for recreational purposes such as crabbing and clamming. ORV use outside designated areas can result in adverse environmental impacts. In an effort to provide bayside access while preventing a significant environmental impact, the National Park Service developed a compromise plan.

The plan provides for the establishment and maintenance of a cabled ORV access route to the bay in the Big Fox Hill levels (an overwash area with little or no vegetation located in the natural zone) approximately 5 miles south of the North Beach developed area. The access would lead from the 12-mile-long ORV sand trail to the bay. The cables will prevent ORVs from entering undesignated areas. Impacts from this alternative are not anticipated to be significant. A research program is proposed to monitor this access and is already underway to evaluate impacts and provide guidance on how best to manage the ORV access.

COMPLIANCE

Consultation was initiated June 1, 1981, with the Maryland Department of Natural Resources under the Coastal Zone Management Act's consistency requirement. As of this printing, no official response has been received. Virginia does not participate in the federal Coastal Zone Management Program.

The U.S. Fish and Wildlife Service has reviewed the Assessment of Alternatives and the preliminary draft of this document according to requirements of section 7 of the Endangered Species Act. FWS comments suggest minimizing effects on the peregrine falcon and request further consultation if the plan changes or if FWS provisions cannot be met (see appendix B).

Compliance with section 106 of the National Historic Preservation Act has been completed in accordance with the programmatic memorandum of agreement (PMOA) and executed pursuant to 36 CFR 800 between the National Park Service, the National Conference of state historic preservation officers, and the Advisory Council on Historic Preservation (December 1979).

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United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

STATEMENT OF FINDINGS

All of Assateague Island is subject to overwash and is considered here to be within the 100-year floodplain. In its 1981 draft general management plan the Park Service proposes to build various visitor use and administrative facilities. Of these facilities, the parking areas, internal roads, foot trails, boardwalks, bathhouses, and boat launches are exempted from floodplain compliance under Section 5B of the National Park Service Floodplain and Wetland Protection Guidelines. The proposed campgrounds and picnic areas are exempt under the same section because floodproofing will be a consideration in their design and construction. Employee housing will be built on the mainland above the 100 and 500-year floodplains. Proposals which require compliance are the headquarters and the entrance station.

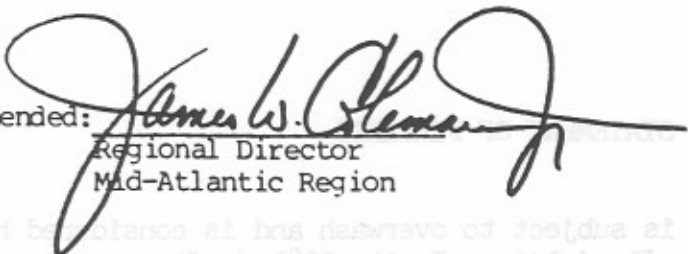
There is potential for loss of life and property due to flooding at Assateague Island at proposed development sites. However, since all of the island is within the 100-year and 500-year floodplain, there is no practicable alternative to developing in the proposed locations; no mainland development alternative would be reasonable. The only action that would totally avoid the hazards associated with use and occupancy of the 100 and 500-year floodplains would be removal of visitor use from the island. However, this alternative would severely hamper use, enjoyment, and management of the national seashore and would be in direct contravention of the intent of Congress as stated in the legislation which established it (89 Stat. 195). Thus, no action is not considered a practicable alternative. All of the alternatives considered are listed in the accompanying Record of Decision. A map showing the proposed development is located inside the back cover of the Draft General Management Plan.

In order to minimize the potential loss of life and property, every effort will be made to monitor potentially dangerous storms; to issue flood warnings; and to evacuate visitors, employees, and valuable property. Moreover, new and existing facilities will be flood proofed where practicable, and no irreplaceable objects will be stored below the 500-year flood elevation.

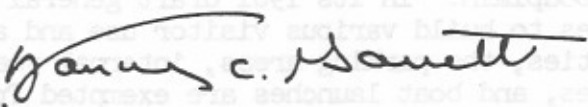
United States Department of the Interior

The proposal to locate development in a 100-year or 500-year floodplain does not conflict with any state and/or local floodplain protection standards, and any adverse effects on natural and beneficial floodplain values and on wetlands will be negligible.

Recommended:


Regional Director
Mid-Atlantic Region

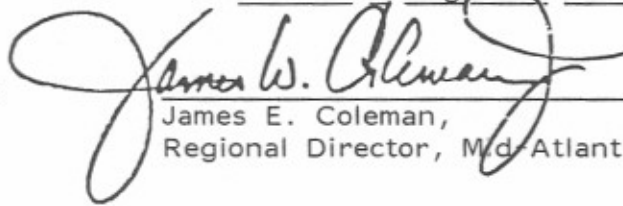
Approved:


Acting Deputy Director
National Park Service

FINDING OF NO SIGNIFICANT IMPACT

The National Park Service has determined that implementation of the selected alternative, which is detailed in the General Management Plan, will not constitute a major federal action that will significantly affect the quality of the human environment as defined in section 102 (2)(C) of the National Environmental Policy Act of 1969 (PL 91-190, 83 Stat. 853). Therefore, the National Park Service will not prepare an environmental impact statement for the General Management Plan.

Approved:



James E. Coleman,
Regional Director, Mid-Atlantic Region

Date of Approval: December 18, 1980



INTRODUCTION

Assateague Island is a 37-mile-long barrier island along the Atlantic Coast of Maryland and Virginia (see Region map). For many years the island was known as a lonely and beautiful retreat where visitors could participate in a variety of beach-oriented recreational activities.

In 1935, the National Park Service inventoried the unspoiled seashore areas on the Atlantic Coast. Assateague Island was 1 of 12 areas identified as suitable and worthy of preservation as a national seashore. Although several legislative bills were introduced to Congress in the 1940s, no action was taken to establish Assateague Island as a national seashore.

The Chincoteague National Wildlife Refuge was established in 1943 and developed by the U.S. Fish and Wildlife Service to maintain and improve wintering grounds for the greater snow goose. The refuge includes almost all of Assateague Island in Virginia and approximately 400 acres in Maryland.

In 1955 the National Park Service conducted a survey along the Atlantic and Gulf coasts. At that time, private development along the Maryland coast was at its peak. As far as public ownership was concerned, Assateague Island seemed unlikely and, therefore, was not recommended in the survey.

In March 1962, a devastating storm inundated much of the island, and in Maryland, the "northeaster" ripped all but the sturdiest homes off their pilings. Serious questions were raised as to the feasibility of private development on the island.

The combined effects of the 1962 storm and a 1963 report resulted in a reevaluation of Assateague Island by the Department of the Interior. The secretary of the interior and the governor of Maryland agreed to a joint study of Assateague Island to determine its best use. A document was prepared by the National Park Service, the Bureau of Outdoor Recreation (now a part of the National Park Service), and the Bureau of Sport Fisheries and Wildlife (now the Fish and Wildlife Service). Again, several legislative bills were introduced to Congress.

As early as 1940, Maryland state planners had recommended land acquisition on Assateague Island to develop a state park. The General Assembly of Maryland authorized funds for land acquisition in 1959 and 1962. A master plan for a state park was prepared in 1964, and funds for facility development became available in 1965.

Following several more attempts by supporters to preserve Assateague Island as a national seashore, Congress authorized the establishment of Assateague Island National Seashore on September 21, 1965 (PL 89-195). The national seashore was created to protect and develop Assateague Island for public outdoor recreation and enjoyment. The enabling act also provided that the lands and waters of the Chincoteague National Wildlife Refuge would be administered for refuge purposes under the laws and

regulations applicable to national wildlife refuges. Major factors listed by the Department of the Interior as rationale for creating the national seashore included a growing demand for seashore recreation, infeasibility of private development on the island, and economic benefits to the local two-county economy.

Today, Assateague Island is an important national resource serving primarily 30 million people living within a 200-mile radius. The island offers one of the last remaining opportunities to meet the seashore recreational needs of these several million people.

Assateague Island was established according to a management arrangement that included an NPS area, a Maryland state park area, and a national wildlife refuge area. The Fish and Wildlife Service has over 35 years of experience in managing Chincoteague National Wildlife Refuge; the National Park Service and Maryland Park Service currently have 13 years of experience in managing Assateague Island.

A one-page master plan was developed for the island in 1967 by the National Park Service; however, much of the plan has not been implemented. Most concepts expressed in that document have been widely questioned for several years. The desirability of constructing an island-long highway and major overnight accommodations, including marinas on the island, has been the major focus of controversy. Also, the concept of placing a segment of Assateague Island within the National Wilderness Preservation System has been reviewed, and a proposal was submitted to Congress by the Department of the Interior in 1974.

In October 1976, PL 94-578 amended the 1965 Act and deleted the requirements for overnight accommodations, other visitor-related conveniences, and the requirement for the secretary of the interior to construct and maintain a highway from the Assateague Channel Bridge to the Verrazano Bridge (formerly Sandy Point-Assateague Bridge).

The Department of the Interior was directed to develop a revised master plan (general management plan) in consultation with other federal, state, local, and private agencies and interests. To accomplish this, the department was instructed to fully consider protection and management of the island, present and proposed uses of the seashore and adjacent lands that could influence the management of the national seashore, visitor transportation systems, carrying capacities, costs, and plans for developing cooperative agreements for use and development of land that would be compatible with the protection and management of Assateague Island National Seashore. Federal legislation, such as the National Environmental Policy Act of 1969, the Coastal Zone Management Act of 1972, and the National Historic Preservation Act of 1966, was also a consideration in developing a revised general management plan.

This General Management Plan is a result of a cooperative planning effort begun in 1977 by the National Park Service, Maryland Park Service, and Fish and Wildlife Service. An Assessment of Alternatives was produced, approved, and released to the public in 1978. Preferred alternatives were subsequently selected by the NPS and FWS regional directors and the director of the Maryland Park Service. A summary of those decisions

was produced and submitted to the Department of the Interior, assistant secretary for Fish and Wildlife and Parks, for approval and transmittal to Congress in October 1978. It was then decided that a memorandum of understanding, which is now completed, executed, and included in appendix C, would have to be completed before the Preferred Planning Alternative could be transmitted to Congress. Deliberations on that memorandum of understanding lasted until the summer of 1979, and on September 5, a revised Preferred Planning Alternative was transmitted to Congress. Following congressional review, the Selection of an Alternative was composed and approved with a Finding of No Significant Impact (both of which are introductory to this plan). The General Management Plan was then composed as an elaboration of the sections of the Preferred Planning Alternative (August 1979) dealing with NPS operations.

The management proposals included in this plan were produced in compliance with NPS planning procedures and address only the NPS-managed lands of Assateague Island National Seashore, including those within Chincoteague National Wildlife Refuge. The proposals for refuge lands were selected in cooperation with the Fish and Wildlife Service.

THE ENVIRONMENT

NATURAL RESOURCES

Physical Characteristics

Most geologists agree that the barrier islands of the Atlantic and Gulf coasts were formed during the period of rising seas following the last period of continental glaciation. The glaciers of the Wisconsin period began to recede northward about 20,000 years ago. At that time, sea levels were some 300 feet lower than they are today because of the water contained in the continental ice sheet. Also at that time, the coastline of the Delaware Peninsula was located approximately 62 miles east of its present location (Natural Resources Institute [NRI] 1970). The glaciers receded during the next 8,000 years, releasing water that caused the rising sea levels.

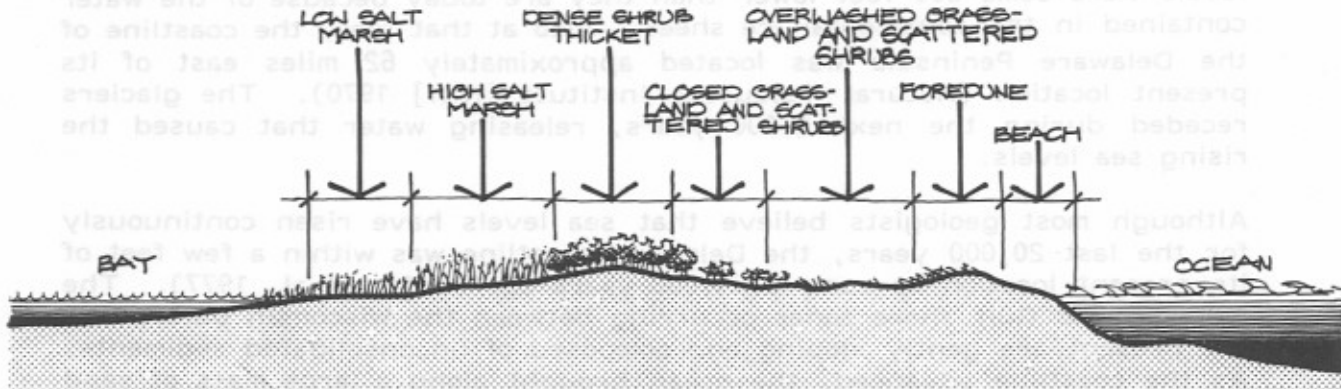
Although most geologists believe that sea levels have risen continuously for the last 20,000 years, the Delmarva coastline was within a few feet of its present location as early as 4,000 years ago (Dolan et al. 1977). The Atlantic and Gulf shore zones occurring between the Wisconsin period and the present are gently sloping and composed of unconsolidated sediments. As the coastline advanced, the ocean brought along a large mass of sand in the form of a beach deposit. When sea levels stabilized about 4,000 years ago, the forces of winds, waves, and currents formed well-defined barrier beaches with primary and secondary dune systems. About 2,000 years ago, ocean levels resumed a slow rise. Erosional forces formed inlets in the barrier dune system, allowing the rising seas to flood the gently sloping flats behind. According to Hoyt (1967), today's barrier islands are remnants of that 2,000-year-old barrier dune system.

Other theories hypothesize that the barrier islands were formed as offshore bars that grew as a result of depositional and erosional forces between the bar and the beach face. Tectonic elevation and/or lowering of sea levels may have played a part in this growth pattern. Regardless of origin, the islands have been somewhat stabilized by the establishment of rooted vegetation behind the primary dunes and in the shoreward bays. Today, this stability is constantly tested by natural forces. In fact, Assateague Island was separated from Fenwick Island (to the north) with the formation of the Ocean City Inlet by the August 23, 1933, hurricane. The jetties were subsequently built to maintain the inlet for navigation.

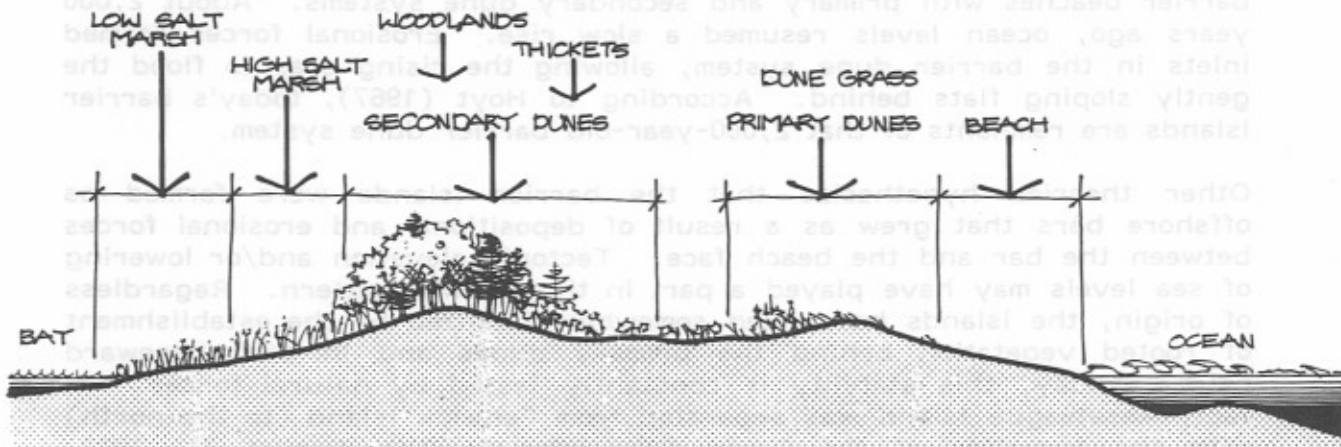
Barrier island physiography is rather simple. The chart on the next page illustrates two typical island cross sections. The depiction closely represents the extremes of Assateague Island. The Natural Resources Institute (1970) has reported that 2,000 to 4,000 years ago Assateague Island joined the north end of Chincoteague Island.

Later an inlet separated the two, and the southerly littoral drift caused a spit to build southward from the Assateague side of the Assateague-Chincoteague Inlet. This spit grew to eventually form the existing south hook, capturing the coastline from Chincoteague Island. The spit probably

CROSS SECTIONS OF A BARRIER ISLAND



TYPICAL OVERWASH AREA



VEGETATION STABILIZED AREA

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grew southwesterly in the area of the high dunes along Assateague Channel. Accretion seaward later increased the south end of the island. Onshore winds transported sand to the perimeter dunes, building the dunes to a height of 47 feet. A more recent spit has evolved into Toms Cove Hook, following much the same growth pattern as that which formed Chincoteague Island.

Dunes are formed by wind transport of fine-grained sand across the island. Sand is deposited on the beach face by wave action and is subsequently blown landward, building the barrier dune and subsequent systems landward of the shore zone. Winds of opposite direction may erode dunes, and overwash processes may result in a net movement of sand either bayward or seaward. A dynamic equilibrium is established when natural forces are unconstrained by man.

Historic evidence of change in the Assateague Island shoreline dating from 1845 has been reviewed (Dolan et al. 1977). This change, as well as the predicted shoreline in the year 2001, is indicated on the Assateague Island Dynamics map. Predicted extremes are evident at the extreme north and south ends of the island where erosion rates are far in excess of the rates observed through the central portion of the island.

The landward migration of the north end of the island has been a result of sand starvation of the North Beach caused by the Ocean City Inlet jetty. These features have altered the original flow patterns of suspended sediments (littoral drift), and eddies produced by obstruction of longshore currents have scoured away the beach zone. Efforts to mitigate this effect have included the deposition of dredge spoils from the inlet on the eroding beach face.

Historically, natural resource "manipulations" that have affected barrier island dynamics on Assateague Island included the building of the Ocean City Inlet jetties and dredging of the channel following the 1933 hurricane, the formation of a large hydrofill causeway area in Maryland in the early 1950s (originally designed to be part of the bridge and road access to private residences in Maryland), and the development and maintenance of an almost continuous island-long artificial barrier dune by federal and state agencies following the northeaster of March 1962. Artificial revegetation of the dunes and interdune areas with native species has also been practiced.

Biota

Probably the most exhaustive study of flora on Assateague Island has been done by Higgins, Rappleye, and Brown in 1971. In The Flora and Ecology of Assateague Island, all plant associations were divided into four zones--dune herbaceous, shrub, arborescent, and marsh herbaceous. These zones were further subdivided and their component species and ecological parameters noted. More recently, Susan Daniels in her 1976 MS thesis, "Applications of Remote Sensing to Resource Classification and Inventory of a National Shoreline Park," presented a biophysical classification system that featured the following community types: foredune, backdune, mudflat, upland, and bayshore. Major constituent

species are listed for each type. Because of the volume of information concerning natural flora on Assateague, the subject will not be treated in detail in this document. Generally, plant communities on Assateague vary from sparse beach grass communities seaward of the barrier dunes, through dense shrub thickets on and beyond the secondary dunes, to wetland forest in the refuge area, or to broad salt-marsh areas along the bayside perimeter.

No threatened or endangered plant species is known to exist on Assateague Island.

In addition to the salt tolerant species generally associated with barrier islands, several fresh and brackish water plant species have become established in the managed waterfowl impoundments on the Virginia end of the island. Some of the plants included in this group are sago pondweed, wild millet, and widgeon grass, which provide a winter food supply for waterfowl.

The Assateague pony is a unique and major attraction for island visitors and is worthy of special mention. Theories on the animal's origin range from a legendary 19th century escape from a foundering Spanish galleon to dereliction by 17th century mainlanders faced with mandatory penning laws for livestock. The ponies were becoming a nuisance as they dramatically increased in numbers. The free-roaming animals were moved to the barrier islands to prevent damage to crops on the mainland and to avoid taxation.

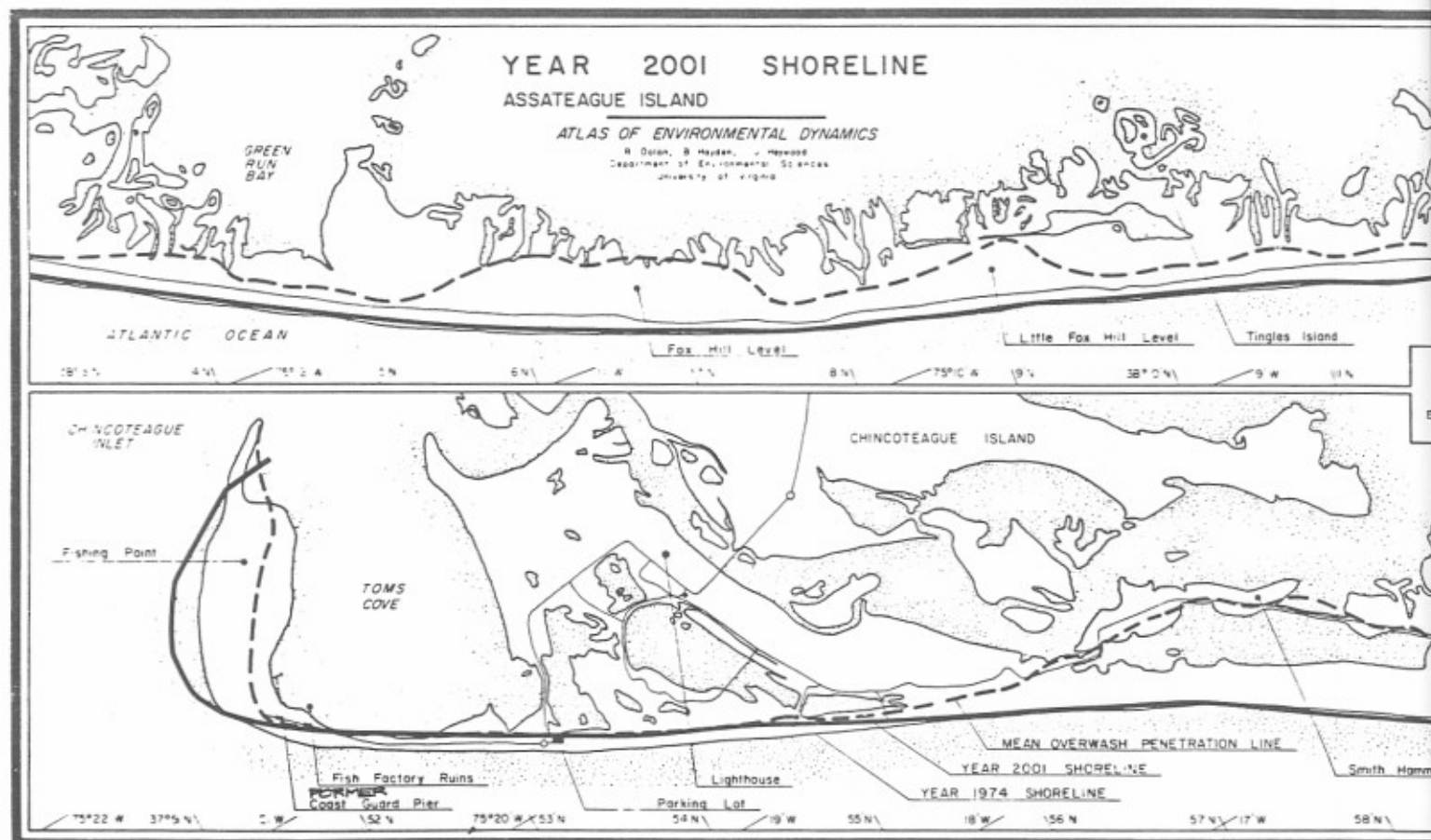
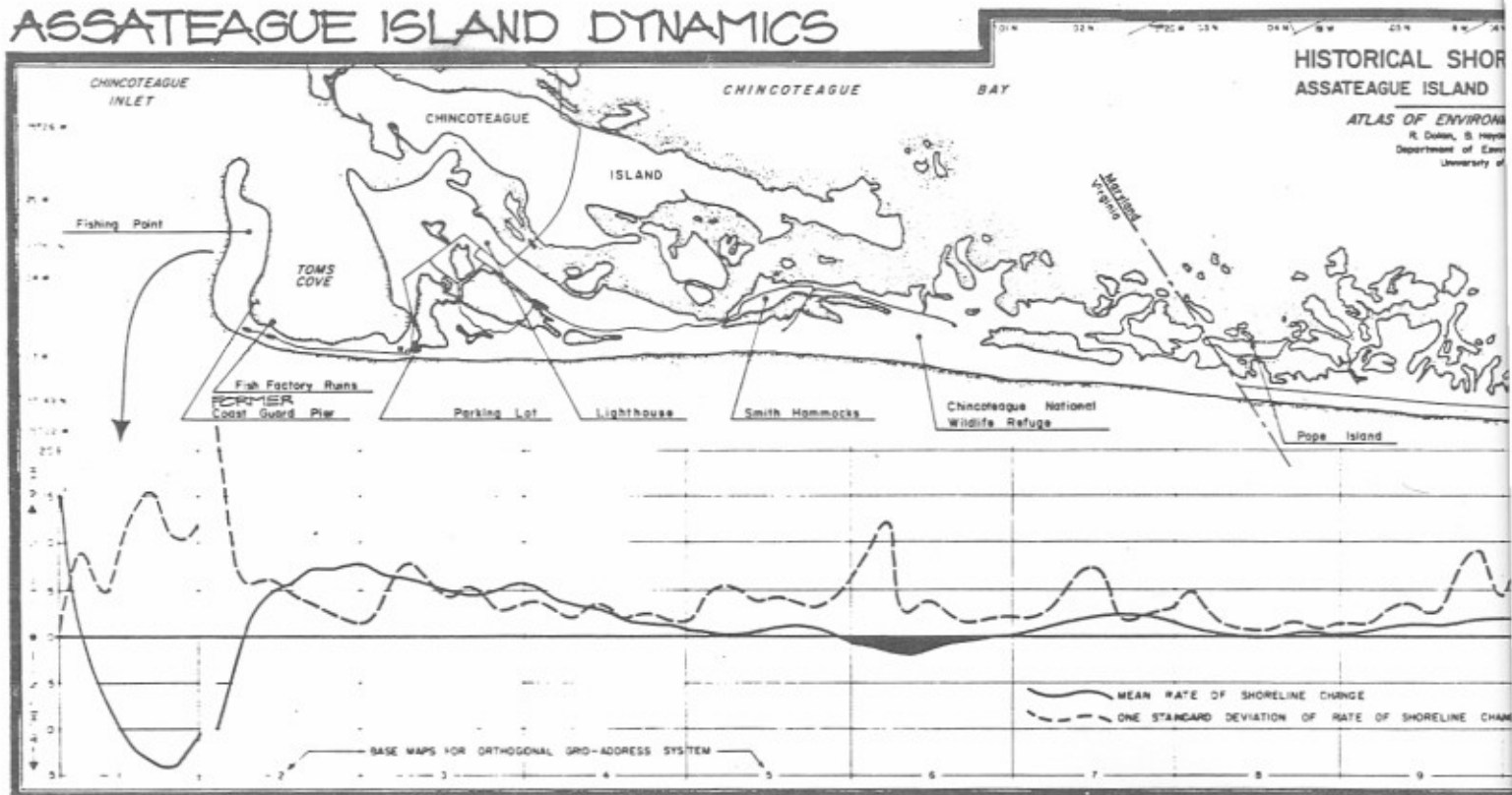
Regardless of origin, public interest in the ponies has continued to grow through popularization of the breed in publications such as Marguerite Henry's Misty.

There are two populations of these ponies on Assateague Island, and each population has small harems and familial groups. The Virginia population consists of approximately 150 animals, which are owned by the Chincoteague Volunteer Fire Company. This population is kept on the Chincoteague National Wildlife Refuge portion of Assateague Island under the authority of a grazing permit with the Fish and Wildlife Service. The population is penned annually, and foals and yearlings are auctioned as a source of revenue for the fire company. Thus, a population of approximately 150 breeding adults is maintained.

The Maryland population is made up of about 80 animals distributed into 7 major herds that are owned by the National Park Service. In 1969 the Ocean City Chamber of Commerce donated the original 40 members of this population to the National Park Service. A fence separates the two populations at the Maryland/Virginia boundary. However, some animals cross the boundary, especially during the breeding season. The Maryland population ranges freely over that portion of the island, while the Virginia population is barred from certain public use and wildlife management areas by fences.

In recent years equine infectious anemia has been diagnosed, and encephalitis has been suspected in both populations of ponies. These diseases are thought to be endemic to the island but result in a relatively

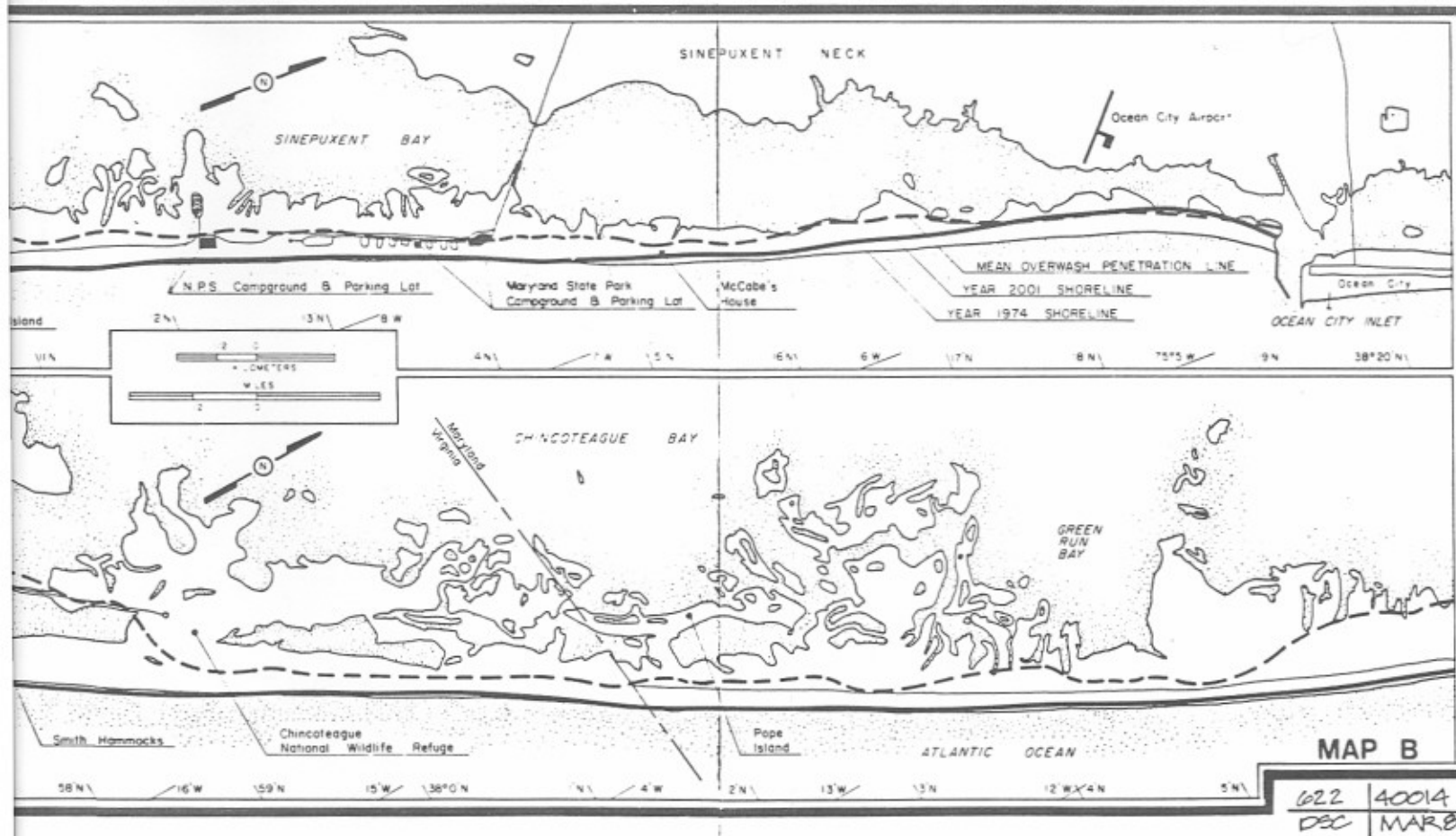
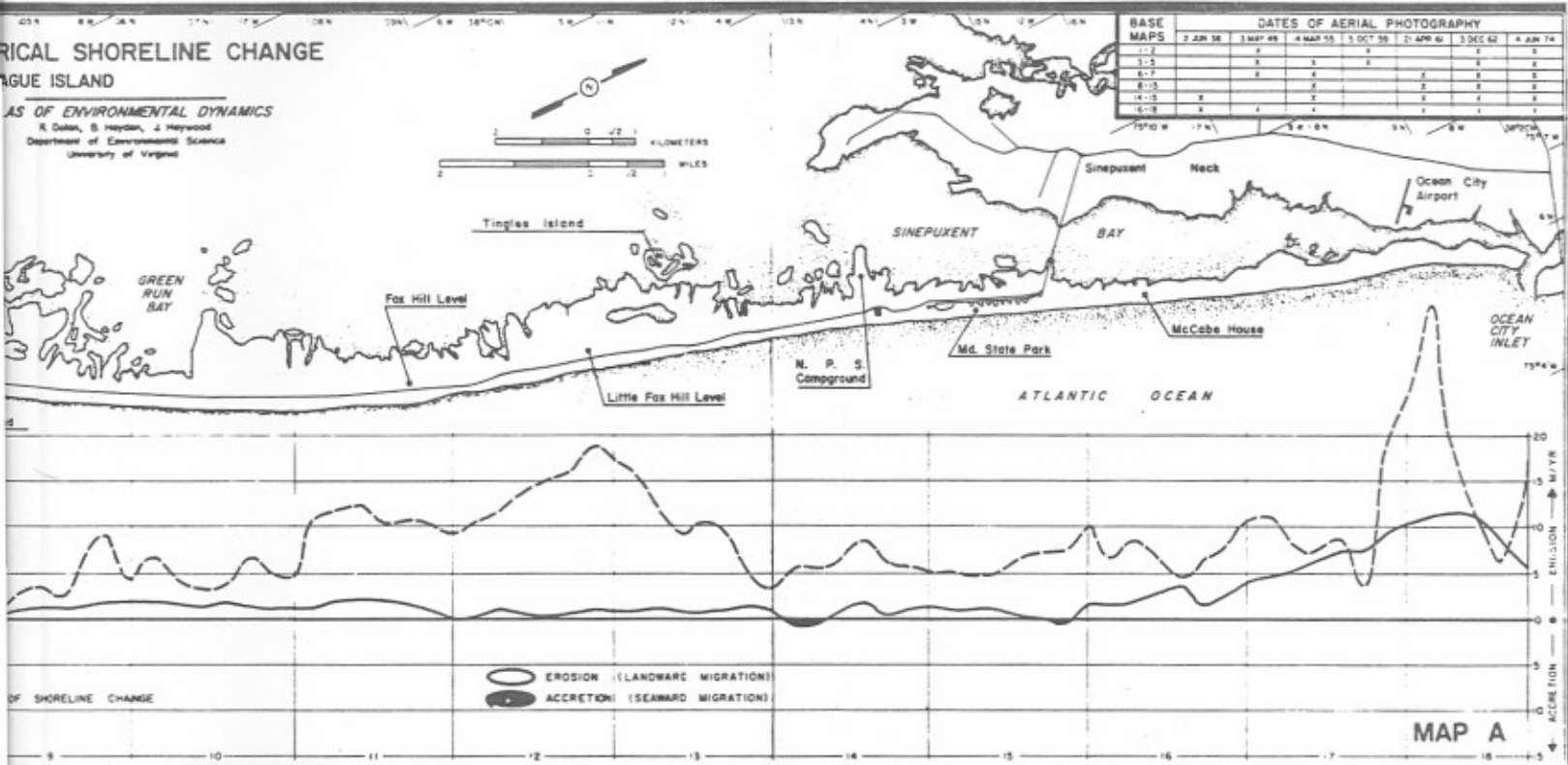
ASSATEAGUE ISLAND DYNAMICS



MODIFIED FROM DOLAN ET AL. 1977

RICAL SHORELINE CHANGE AGUE ISLAND

AS OF ENVIRONMENTAL DYNAMICS
 R. Dolan, B. Hayden, & Heywood
 Department of Environmental Science
 University of Virginia



small number of mortalities. State authorities consider the Maryland population to be effectively quarantined by the waters of Sinepuxent Bay, but authorities insist on a separation of the Maryland and Virginia populations. Recently, privately owned saddle horses have been barred from the Maryland lands of Assateague Island during the summer season because of the infectious nature of the diseases and the abundance of vectors, the mosquito and the blood-sucking flies. Some controversy exists concerning the importance of the threat of disease to mainland stock from the Assateague pony populations. This controversy will be the target of future research, and management implications will be discussed in a resource management plan for Assateague Island National Seashore.

Endangered animal species inhabiting the island include the peregrine falcon (Falco peregrinus tundrius) and the Delmarva fox squirrel (Sciurus niger ginereus). Three bird species of special concern but not federally listed are the osprey (Pandion haliaetus carolinensis), the Eastern merlin (Falco columbarius columbarius), and the Ipswich sparrow (Basserculus princeps). One reptile, the Atlantic loggerhead turtle (Caretta caretta), also inhabits the island (USDI, NPS 1977). No critical habitat has been designated on Assateague Island by the Fish and Wildlife Service.

The loggerhead is known to have used Assateague Island for nesting. A project, now terminated, to reestablish a nesting population of the species by the Fish and Wildlife Service was initiated in Chincoteague National Wildlife Refuge in 1969. Recent data suggest that the Assateague coast is relatively unimportant to loggerheads as nesting habitat and has little potential for increased use.

Succession

The concept of succession is extremely important in the understanding of island synecology. Although species or population ecology may focus on the relationship of an individual species with environmental components within a static time frame, synecology deals with all plants and animals and their interrelationships and relationships with existing physical parameters. Because change is guaranteed among the physical environmental components, the biota must likewise be altered through successional processes.

Generally, succession proceeds from a bare substrate (i.e., soil and water) through populations of pioneer species and through seral (intermediate) communities to a theoretical set of climax communities. That climax will be constantly tested by changes in biotic or physical components of the environment (e.g., proliferating populations of borer beetles, tornadoes, etc.).

Barrier islands are probably the most changeable substrates among natural features of this continent. Overwash can destroy plant communities in any stage of succession and result in an inlet or alluvial deposit of new sand. Wind can build dunes, covering and smothering existing vegetation. These forces work to set succession back to the pioneer stage.

Tides are mainly a result of gravitational forces of the sun and moon acting on the oceans. At times these forces complement each other; other times they oppose each other, causing tides to vary greatly within a short period of time. Along the Atlantic Ocean, tides occur semidiurnally, with 12 hours, 25 minutes, between peaks. In June and September daily tidal fluctuations at Ocean City, Maryland, vary from 1.8 feet to 5.7 feet, and in January daily ranges vary from 2.5 feet to 6.2 feet (NRI 1970). The average daily range is 3.0 feet (Dolan et al. 1977).

Bay currents near Assateague Island are independent of nontidal oceanic currents (NRI 1970). Net outflow of water from the bay is low in volume. During the summer, the major source of water loss from the bay is through evaporation. Daily water exchange between the bay and the ocean has been estimated at 7½ percent (Pritchard 1960).

Ocean surface currents in the Assateague area are generally onshore during the summer. Bottom waters drift west to southwest, although the entire water mass has a net northerly drift (NRI 1970).

Seaswell, or waves, is caused by wind passing over a body of water. Generally, wave height is directly proportional to wind intensity. An extensive summary of wave conditions is found in the NRI 1970 report. Wave heights observed off Assateague Island range from 5 feet and up (30 percent of the time) to 20 feet and up (2 percent of the time) in November and range from 5 feet and up (10 percent of the time) to 20 feet and up (very rare) in August.

Barrier islands are the ephemerals of geologic time. The active forces that produced barrier islands continue to change them. Gradual changes are measurable, and dramatic episodic changes resulting from extremes in cyclical forces (weather, sea, level, etc.) are predictable.

The more or less constant forces of waves, tides, and winds affect island geomorphology in the following ways (Dolan et al. 1977):

Movement along the shore zone - As waves approach the coast at an angle, longshore currents are set up that result in an annual net water and sediment flow south along Assateague.

Movement across the shore zone - Extremely high waves and tides, such as those commonly accompanying storms, may penetrate the beach and/or barrier dune. This overwash may carry saltwater and sediment across the island.

Movement by wind action - Fine-grained sands from bare areas of the island may be carried by wind in any direction.

Overwash processes have great ecological significance to barrier islands. Temporary overwash conditions can greatly alter vegetation by sediment deposition, soil salinization, and nutrient transport. Historically, frequent overwashes on Assateague Island have been a major factor in the development and maintenance of a lengthy, irregular bayside perimeter with characteristic waterways, deltas, islands, shoals, and bars.

Change is inevitable on barrier islands, and man's efforts to stabilize conditions most often run contrary to natural dynamics. Conditions observed at any island location on a given day (past or present) do not necessarily represent the natural or primal situation. Succession is natural, and change in Assateague Island will continue. The level to which man will attempt to prevent or temper these changes will determine the degree of naturalness to be observed by future generations.

CULTURAL RESOURCES

Island History

The area to the west of Assateague Island was settled by coastal Indians when Giovanni da Verrazano, in the service of Francois I, navigated that shoreline in 1524. Evidence seems to indicate that the Indians used Assateague Island for fishing and hunting only, while more permanent settlements were located to the west. Although Verrazano and his crew of the Dauphine sailed through Chincoteague Inlet, Chincoteague Bay, and Sinepuxent Bay, they did not land on Assateague Island.

Because of the dangerous shoals off the Maryland and Virginia coasts, local legislation was passed by the late 18th century to prevent shipwrecks in those two states. The wrecking and salvage business was highly lucrative along the Atlantic Coast, sometimes at the cost of lives. However, it was not until 1871 that Congress approved an appropriation for the establishment of a federal lifesaving service. In 1874 legislation was passed authorizing three types of stations--lifesaving stations, lifeboat stations, and houses of refuge. The lifesaving stations were equipped with surfboats, rocket and mortar apparatus, life cars, and enough housing for the crews who manned them, as well as temporary accommodations for victims of the disasters.

Eight lifesaving stations were authorized between Cape Henlopen and Cape Charles. Two stations were located on Assateague Island--at Green Run Inlet and Assateague Beach. The Pope Island lifesaving station came into existence in 1878 and the North Beach station in 1883-84. The only remaining station of the five constructed is the Assateague Beach Coast Guard station, which was built in 1922. The other stations, after being decommissioned, reverted to the former owners, and many were lost through neglect or destroyed by fire.

This coast had been somewhat protected by navigational aids prior to the formation of the U.S. Lifesaving Service. In 1831, Congress had approved funding for a lighthouse along the treacherous shoals off Assateague. The fixed light, consisting of 11 lamps and 14-inch reflectors, began operation in 1833. By 1852 the Lighthouse Board recommended that the light be improved because it was ineffective. They recommended raising the tower and putting in a first-order lens, so that the light would be visible from much greater distances. In 1860 Congress authorized funds for the new Assateague lighthouse, but the project was suspended during the Civil War. In 1866 the appropriation was increased to cover higher costs.

Reconstruction of the complex was completed in 1867 and included a lighthouse, an oilhouse, and a keeper's quarters. The keeper's quarters, which was later dismantled and sold, included a portion of the 1833 keeper's residence. The third keeper's residence, a 1910 bungalow, is occupied by the manager of the Chincoteague National Wildlife Refuge.

Assateague Island saw its share of wartime activity during both world wars. In World War I, the first successful German U-boat attack in U.S. coastal waters occurred 30 miles southeast of Toms Cove, and the last ship sent down in 1918 was within 10 miles of Assateague. The first U-boat attack by U-151 off the coast of Assateague was followed by a three-month cruise along the Atlantic Coast, during which time it sank more than 20 ships, laid mines in Delaware Bay, and cut two trans-Atlantic cables in New York Harbor. During World War II, several vessels were torpedoed and sunk within sight of the Pope Island Coast Guard station.

Several areas on Assateague Island were settled during the 19th century. At North Beach, the lifesaving station served as the focal point of the community. Cottages, a one-room schoolhouse, and Birchs Saltworks were also located at North Beach. The settlement at Pope Island was smaller; it had only a few families, and most of them were connected with the lifesaving service.

Green Run had a great deal more activity. Scotts Ocean House, located on the bayside, was a popular resort hotel, particularly during the 1880s. The hotel boasted 20 bedrooms and a fine seafood menu. The resort became so popular with young people and the clergy that reservations had to be made weeks in advance. Nearly 30 families lived in the vicinity of Green Run, some working for the hotel and the lifesaving service and others employed in maritime industries. By the early 1900s, the population declined, and many families moved their houses to the mainland. Scotts Ocean House closed about 1912. By 1937 all other cottages had disappeared. The Green Run Cemetery was known for its teakwood headboards, which were handcarved by local craftsmen, but all of these have been stolen or vandalized.

Assateague Village, with a population of approximately 225 people in 1900, was the largest settlement on the island. The village had a one-room schoolhouse and a church. In 1922 a new landowner prohibited residents access over his property to Toms Cove, resulting in most of the villagers barging their houses to Chincoteague Island. The cemetery at Assateague Village also was filled with carved teakwood headboards, none of which are extant.

The residents of Assateague Island relied on several industries, such as gathering driftwood and selling wild seabird eggs. From 1630 until about 1852 several saltworks used for collecting sea salt by evaporation were located on the island. Two fish factories located at the south end of the island processed fish oil and fish fertilizer just after the turn of the century. The Seaboard Oil and Guano Company, the larger of the two factories, burned after four years of operation. The Conant Brothers fish factory went out of business when the inlet silted in to such an extent that ships could no longer dock at the wharf.

Activities on Assateague gradually phased into other uses. Hunting, fishing, and summer activities, such as swimming, remained popular. In 1943 the southern portion of the island became the Chincoteague National Wildlife Refuge. The area was developed for greater daytime use in 1956. During the 1950s, the northern section of the island was subdivided into thousands of vacation homes. However, most owners never constructed any homes. The 1962 storm destroyed most of the existing development and discouraged any further construction. In 1965 Assateague Island was authorized as a national seashore.

Maryland

Historic sites and structures on Assateague Island were identified in a historic resources survey conducted in 1968 (USDI, NPS 1968). These are described and evaluated below and are shown on the Management Zoning/Cultural Resources/Developed Areas map in the inside back cover of this document. The number following the site or structure corresponds to the number on the map.

Pope Island Boathouse (1). The Pope Island boathouse is part of the former Pope Island lifesaving station complex that was constructed in 1879. The one-story frame structure was remodeled in the 1930s and later moved from its original site. The building escaped destruction when the rest of the lifesaving complex burned in 1970. In 1978 the National Park Service relocated the building to North Beach. The building is owned by the National Park Service and has been recorded on the List of Classified Structures; however, it does not meet the criteria for eligibility to the National Register of Historic Places.

Site of North Beach Lifesaving Station (2). The station was located on the north portion of the island and was in use from 1884 to 1952, when it was decommissioned. The buildings were destroyed by severe weather and vandalism, but some foundation rubble remains. The property is owned by the National Park Service and does not meet the criteria for eligibility to the National Register.

Site of Birchs Saltworks (3). The saltworks were in use from 1870 until 1890. The site is on the north end of Assateague Island, near the end of North Beach Drive, on NPS property. The site does not meet the criteria for eligibility to the National Register.

Site of Green Run Inlet Lifesaving Station (4). The lifesaving station was located in the vicinity of Green Run Inlet and was in use from 1875 until 1937, when it was decommissioned. Subsequently, the buildings were sold and moved to the mainland. The property is owned by the National Park Service and does not meet the criteria for eligibility to the National Register.

Site of Scotts Ocean House (5). This hotel was the focal point of the beach settlement at Green Run. The building was constructed during the 1870s and remained in operation until about 1912. The NPS site does not meet the criteria for eligibility to the National Register.

Site of Green Run Village (6). Green Run Village was the second largest community on Assateague Island. Most of the village structures here were moved to the mainland after the turn of the century. There is virtually no fabric of this community remaining. The property is owned by the National Park Service and does not meet the criteria for eligibility to the National Register.

Green Run Cemetery (7). Green Run Cemetery, which probably dates from the 1860s, was known for its carved teakwood headboards and footboards. After years of vandalism and theft, none of these remain. Only one grave is marked with a stone at the present time. The NPS-owned cemetery is not eligible for inclusion on the National Register but has been recorded on the List of Classified Structures.

Virginia

Assateague Beach Coast Guard Station (8). The station complex, which has undergone little alteration since its inception, consists of a headquarters/residence, garage, steel observation tower, boathouse, wharf, and breakwater. The Coast Guard station, located at the south end of Assateague Island, served as the headquarters for the U.S. Coast Guard from 1922 until 1967. The complex is a fine example of a period Coast Guard station that is located in a protected area, from which the crews could commence rescue operations from the calmer inlet waters even during the roughest weather. The station had a distinct advantage over those located directly on the ocean. The property has undergone very little alteration. The complex is owned by the National Park Service and is included on the List of Classified Structures. The station is a registered Virginia landmark and has been determined eligible for inclusion on the National Register.

Ruins of Seaboard Oil and Guano Company Fish Factory (9). The factory, which processed fish oil and dried fish fertilizers, was in use from 1912 until 1916, when it burned. Concrete foundations and masonry walls are all that remain of the factory. These ruins are located at Toms Cove and do not meet the criteria for eligibility to the National Register. The property is owned by the Fish and Wildlife Service and has been recorded on the NPS List of Classified Structures.

Site of Conant Brothers Fish Factory (10). This second fish factory is located approximately one-quarter mile west of the seaboard factory ruins and was in use from 1919 until about 1929. At that time, ships could no longer dock in the cove because of siltation. A few small remnants of the factory are still visible at low tide. The property is owned by the Fish and Wildlife Service and does not meet the criteria for eligibility to the National Register.

Site of Pope Island Lifesaving Station (11). Located near Pope Island (6 miles south of Green Run Inlet), the lifesaving station was in use from 1878 until 1953, when it was decommissioned. Except for a coalhouse and boathouse, all NPS structures were destroyed by fire in 1970. The coalhouse was destroyed by fire in 1981. The site is on NPS property and does not meet the criteria for eligibility to the National Register.

Assateague Lighthouse (12). The most prominent historic structure on Assateague Island today is the 1867 lighthouse, whose red- and white-striped tower rises dramatically at the southern end of the island. This lighthouse is listed on the National Register of Historic Places and is owned by the Fish and Wildlife Service and operated by the Coast Guard. It is accessible to visitors, but the interior is not open for climbing. The proposals in this plan for NPS-managed lands in Virginia will not affect the Assateague lighthouse.

Many of these historic sites are now considered archeological resources. A thorough archeological survey of Assateague Island has never been completed. It is doubtful, given the nature of the island's composition and dynamics, that an extensive undisturbed archeological record will be found on Assateague.

SOCIOECONOMIC ENVIRONMENT

Maryland

Most land in Worcester County, Maryland, remains in an undeveloped state in forest, cultivation, marsh, or beneath water bodies. Almost 20 percent of the county is in water bodies, and about 94 percent of the total acreage is open space. The county land area totals 309,120 acres. Only about 7 percent of the land area is intensively developed. Most of this development is found in and around the four incorporated towns of Pocomoke City, Snow Hill, Berlin, and Ocean City, and in resort communities surrounding the latter.

Although a sizeable acreage of open space exists in the Maryland area, a large portion of that acreage is in wildlife management areas that have limited potential for intensive recreational use.

The major economic resource of Worcester County is the resort industry. Other recreational resources, such as fishing, crabbing, swimming, hunting, golf, and a number of spectator attractions, also play an important role.

Predicted employment trends include substantial growth in recreation-related industries and modest growth in industries serving the year-round population.

The year-round population of Worcester County has been stable for many years. The 1970 census recorded 24,400 persons, while the 1975 population was reported to be 27,000. By the year 2000, the population could reach 36,000 persons.

Virginia

Accomack and Northampton counties, Virginia, are primarily rural in nature, with agriculture being the predominant source of income and seafood production being second.

The bicounty area is almost evenly divided among cropland, woodland, and tidal marsh. Only about 1.5 percent of the total land area is located within the jurisdiction of local towns.

Tourism is the leading source of income on Chincoteague Island. The island contains a wide variety of support activities such as motels, campgrounds, restaurants, gift shops, sporting goods and fishing tackle shops, and bicycle and tackle rentals.

Employment trends include decreases in agriculture, fisheries, and the trucking and warehousing occupations and increases in employment in manufacturing, supporting industries, and civil service.

Net population growth is expected to take place through the year 2000, when the Eastern Shore is expected to be home to 52,600 residents.

EXISTING DEVELOPMENT AND USE

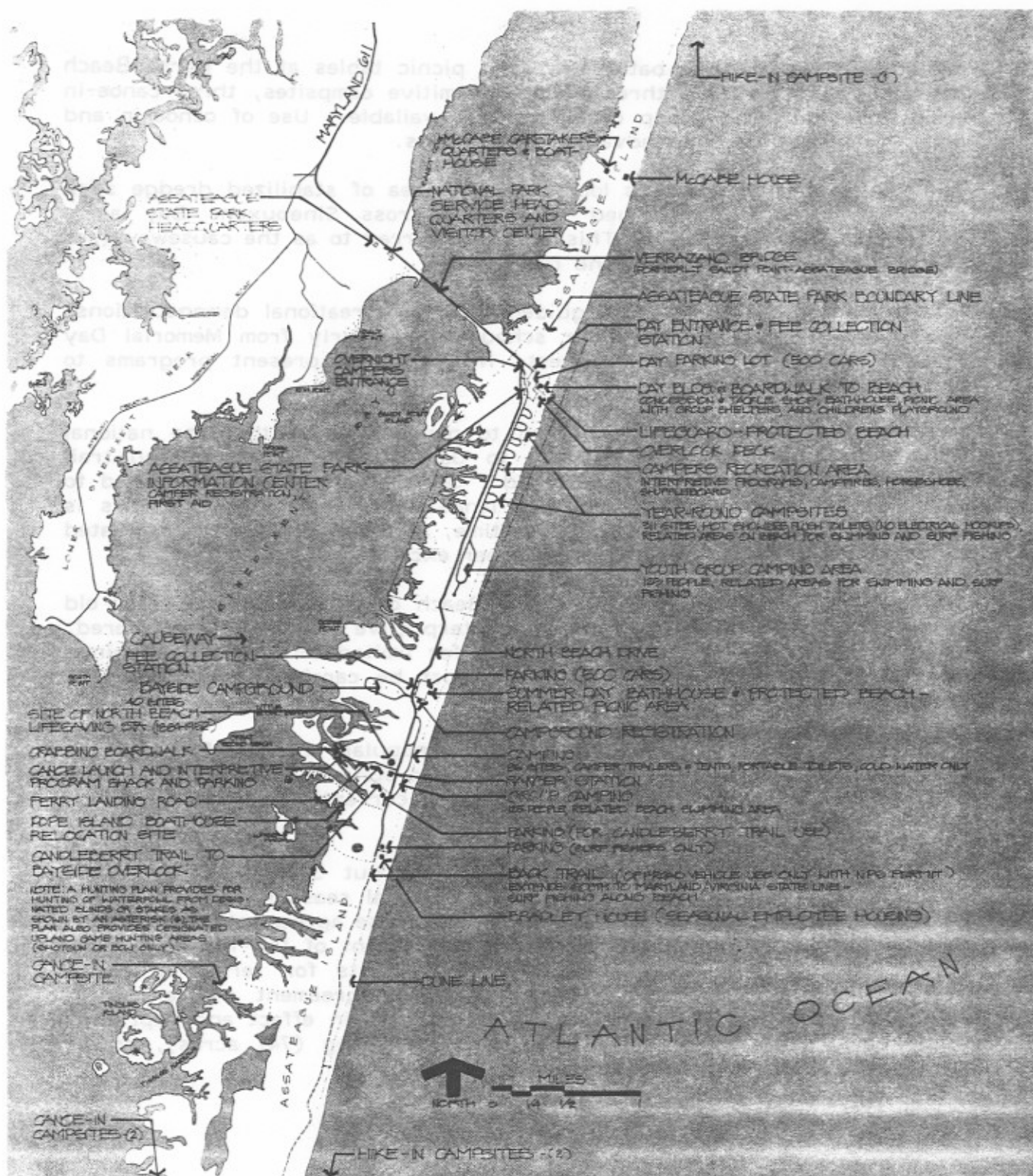
Three government agencies administer land within the authorized boundary of Assateague Island National Seashore (see Management Zoning/Cultural Resources/Developed Areas map in the inside back cover). Each agency manages the resources under its jurisdiction according to its basic mission, policies, and regulations.

Maryland

The Maryland lands of the national seashore are managed for island protection and public beach-oriented recreation that includes sunbathing, camping, ORV use, hiking, and surf fishing. The Existing Development - Maryland map shows the existing developments that are managed by the Maryland Department of Natural Resources and by the National Park Service.

Maryland Park Service. The Maryland Park Service, Maryland Department of Natural Resources, administers Assateague State Park. The 680-acre state park extends 2 miles mostly south of the Verrazano Bridge. The facilities at the state park include a 500-car parking area, a campground with bathhouses, picnic tables, bathhouse for day visitors, group shelters, and a concession stand with food service and souvenirs. Visitors who use the state park day facilities will be subjected to state park hours of operation and fees; fees are charged in summer only. Operating hours of the parking area vary with the season. During the summer months, a lifeguard-protected beach and interpretive programs are available upon request. Administrative and maintenance facilities are located on the mainland.

National Park Service. The National Park Service administers the remainder of the Maryland segment (7,897 acres) of the island north of Assateague State Park and south of the state park to the state line. Information, exhibits, and publications are available at the visitor center on the mainland end of the Verrazano Bridge. The National Park Service maintains two campgrounds (North Beach and Bayside), a lifeguard-



LEGEND

- ASSATEAGUE STATE PARK - MANAGED BY THE MARYLAND DEPARTMENT OF NATURAL RESOURCES
- ASSATEAGUE ISLAND NATIONAL SEASHORE - MANAGED BY THE NATIONAL PARK SERVICE

EXISTING DEVELOPMENT - MARYLAND

ASSATEAGUE ISLAND NATIONAL SEASHORE
ASSATEAGUE STATE PARK
UNITED STATES DEPARTMENT OF THE INTERIOR

622-10017-A
DEC 1980

protected beach with a bathhouse, and picnic tables at the North Beach developed area. Also, three hike-in primitive campsites, three canoe-in campsites, and five group campsites are available. Use of canoe-in and group campsites requires advance reservations.

The Bayside campground is located in an area of stabilized dredge spoil once meant to be continued westward across Sinepuxent Bay as a causeway to the mainland. This area is referred to as the causeway (see Existing Development - Maryland map).

Interpretive activities include guided walks, recreational demonstrations, and evening programs that are scheduled regularly from Memorial Day through Labor Day. Upon request, NPS rangers present programs to groups throughout the year.

Conventional vehicles are restricted to paved roads within the national seashore, but ORVs are permitted to use the beach and a sand trail beyond the end of the surfaced road. ORVs are currently permitted to use a 12-mile segment of Maryland lands. The number of vehicles is currently limited to 145 at any given time, and the vehicles are regulated by a one-off/one-on system if the number exceeds 145.

A short spur road opposite the North Beach campground leads to an old ferry landing on the bayside where interpretive programs are offered. The ferry landing also provides a site for limited small boat launching. No ramp is provided, so boats often must be carried from trailers or carts to the water.

Hunting for waterfowl and deer is very popular within NPS lands in Maryland. Hunting is permitted according to state and federal game laws and regulations. The National Park Service currently provides 27 blinds for waterfowl hunters.

The National Park Service has acquired all but 5 acres of the land identified for acquisition at the time the national seashore legislation was enacted. Many landowners opted for retained use agreements rather than outright transfers of all rights to the Department of the Interior. The agreements granted former owners certain rights for terms up to 25 years. Initiated at different times, the last agreement will expire in 2002. Agreements with 11 parties are currently in effect and represent three basic types: residential (55 acres), hunting (747 acres), and a combination of the two (283 acres).

Virginia

Federal lands within the Virginia segment of Assateague Island National Seashore are managed primarily as a wildlife refuge, especially for migratory birds. The 9,460-acre refuge offers a diversity of natural and managed habitats for a variety of wildlife species. The area of the refuge known as Toms Cove Hook serves as a major day recreation area for hundreds of thousands of visitors each year. The Existing Development - Virginia map shows the existing developments that are managed by the Fish and Wildlife Service and by the National Park Service.



Fish and Wildlife Service. Chincoteague National Wildlife Refuge occupies the Virginia segment of the island and is administered by the Fish and Wildlife Service, Department of the Interior. Freshwater impoundments and a bayside zone of salt marsh support enormous migratory flocks of ducks, geese, and swans from autumn until early spring. Summer flocks include egrets, herons, ibises, skimmers, black ducks, gadwalls, wood ducks, Canada geese, and many species of shorebirds.

An access road extends 5 miles from the town of Chincoteague through the wildlife refuge to a lifeguard-protected beach. From there, the Toms Cove Road extends 2 miles south to the hook. The Fish and Wildlife Service maintains two nature trails near this road. Another trail leads to the Assateague lighthouse. Information and programs are available at the refuge visitor center.

Interpretive boat cruises, fishing trips, and land tours are available within the wildlife refuge. Ten miles of oceanfront are maintained as wild beach. Facilities, programs, and activities are accessible to the handicapped. The Youth Conservation Corps and the Young Adult Conservation Corps have instituted programs.

Chincoteague National Wildlife Refuge was established in 1943 for the primary purpose of providing migration and wintering habitat for the greater snow goose. The initial developments on the refuge were designed to maximize this snow goose utilization. Since the refuge was established, management policies of the Fish and Wildlife Service in general and the Chincoteague National Wildlife Refuge specifically have expanded to include optimizing all wildlife utilization. In order to achieve this goal, numerous management policies have been adopted. Since the national wildlife refuge and nearby areas provide numerous visitor attractions, refuge policies and programs have also been developed to accommodate visitor needs. Visitor programs are limited to those that can be accommodated without adverse impacts on the wildlife population being managed.

In order to protect the resources of the refuge, several regulations have been implemented to minimize impacts on the resources. These regulations include limited entry time currently from 4:00 a.m. to 10:00 p.m. from April 1 through November 30 and from one-half hour before sunrise to one-half hour after sunset the balance of the year. The regulations limit boat access to Toms Cove Hook and Assateague Point only, restrict ORVs to portions of Toms Cove Hook, and prohibit pets. Fishing and clamming are limited to selected areas.

National Park Service. The National Park Service, by memorandum of understanding with the Fish and Wildlife Service, operates a visitor recreational program on the Toms Cove Hook portion of Chincoteague National Wildlife Refuge.

The National Park Service maintains on Toms Cove Hook a visitor information/ranger station, a lifeguard-protected swimming beach, restrooms, bathhouse, amphitheater, parking areas, and picnic sites. There is a designated beach area for ORVs at the south end of the hook. This area is limited to 42 vehicles at any one time. If more than the

maximum number of vehicles is present, a one-off/one-on control measure is initiated. Regular parking on the hook is handled in a similar manner.

The old Assateague Beach Coast Guard station and approximately 6 acres around it are under NPS ownership and management. The main residence is currently used for seasonal housing; other structures are used for NPS storage.

Currently, the Fish and Wildlife Service owns lands in Maryland, and the National Park Service owns lands in Virginia. To provide single-agency ownership of contiguous lands, a proposal has been made to transfer FWS lands in Maryland to the National Park Service and to transfer NPS lands in Virginia to the Fish and Wildlife Service. Exceptions would be made for the Assateague Channel Bridge, which is outside the authorized refuge boundary, and for the Coast Guard station tract.

DESCRIPTION OF THE VISITOR

The following information was derived from two sources that examined the specifics of the Assateague visitor: previous records of the three managing agencies and findings reported in "A Social Profile of the Visitor to Assateague National Seashore" by the City University of New York (CUNY). These CUNY findings included information from questionnaires that were distributed during the summer and fall of 1977.

Visitor Profile

In the ten years between 1968 and 1978, visitation at Assateague Island doubled, reaching 2 million visitors annually. These visitors, who came from many areas of the United States and several foreign countries and represented a cross section of lifestyles, participated in a variety of activities. The overwhelming majority of visitors had a satisfactory experience, and they had definite opinions about what they would like to see on the island in the future.

Visitors to Assateague Island were family-oriented. Almost half of the visitor groups came with children, and approximately one-third of the visitors were in groups of five or more. Almost 60 percent of the visitors surveyed were professionals, compared to 30 percent found in other park surveys and 15 percent of the American public. More than 96 percent of the visitors had completed high school.

Visitor Origins

The three agencies have kept statistics on the visitor origins for a number of years. Minor variances occur from year to year, but relative percentages have remained the same. In the Virginia portion of the seashore, Maryland visitors currently top the list, although in the late 1960s, Virginia visitors were more plentiful. In 1977, 28.5 percent of the visitors to the wildlife refuge portion of the seashore came from Maryland; 22.3 percent came from Virginia; and 17.4 percent came from Pennsylvania.

The Maryland portion of the seashore is also visited more heavily by Maryland residents. Statistics in 1977 showed 27 percent originating from Maryland, 7 percent from Virginia, 25 percent from Pennsylvania, 9 percent from New York, 8 percent from New Jersey, 3 percent from Delaware, 4 percent from Ohio, and 17 percent from other states. These figures were derived from an analysis of the park registration book located at the NPS visitor center in Maryland.

The 1977 combined percentages for the north and south portions of the island were 27.9 percent for Maryland, 20.4 percent for Pennsylvania, and 16.4 percent for Virginia. The total percentages represent nearly two-thirds of all the visitors. Consequently, Assateague Island functions more in a regional rather than a national context.

The 1977 questionnaires provided the following information:

The average visitor group (60 percent) spent between two to four hours traveling to the seashore, but a significant 25 percent spent between four to eight hours traveling to either Assateague or Chincoteague.

Of the visitors traveling to Assateague, 98 percent arrived by automobile.

Of the overnight visitors, 65.3 percent of the visitors stayed two to four days in the park.

Assateague Island was the primary destination for the large majority of visitors (81.4 percent).

A large number of visitors were suburban residents from the Washington, D.C., Baltimore, and Philadelphia metropolitan areas.

Most visitors had been to the island before; only 29 percent claimed to be on their first trip to the island.

Visitor Activity Preferences

Research conducted by City University of New York has shed some light on the most popular activities in which visitors participate. Questionnaires were distributed to visitors at a beach during two weekends in summer and early fall (1977). Spring and winter activities (e.g., hunting) were not represented in the sample. Table 1 contains the results of the summer and fall questionnaires.

Although the overwhelmingly popular activity of those samples was ocean swimming, the natural attractions of the island were important to the visitor as well. Table 1 also lists the activities in order of popularity.

TABLE 1: PARTICIPATION IN RECREATIONAL ACTIVITIES

Activity	Percent of Participation
Ocean swimming	96.4
Beachcombing	52.6
Jogging or walking	41.3
Bird-watching, nature walking	40.2
Picnicking	35.6
Fishing	28.3
Guided walking or self-guiding trail	18.6
Bicycling	18.1
Hiking or backpacking	10.4
Bay swimming	8.4
Surfing	7.9
ORVs	6.6
Sailing	4.1
Canoeing or kayaking	3.9
Boating	3.6
Horseback riding	1.6
Hunting	0.9
Waterskiing	0.7

Source: City University of New York 1977.

The survey also attempted to identify the impact on Assateague visitors at nearby attractions and facilities. A first sample showed a significant impact locally to provide overnight accommodations; facilities on the island accommodate only 234,000 overnight stays. Research showed that some 80 percent of the visitors stayed overnight; therefore, the surrounding communities provided some 1.3 million overnight stays during 1977. Most of these were in the form of campsites. Chincoteague has some 2,265 private campsites that were heavily used by island visitors in 1977.

The first weekend survey indicated that Assateague tourists also visited Ocean City attractions (42 percent visited the boardwalk and 36 percent ate at restaurants). A number of groups were identified in this first survey and a more detailed look at these groups and activities follows.

Camping. During the 1979 summer season, island campgrounds, including the 311 campsites in the state park, operated near capacity. NPS campgrounds were used mostly by tenters, with the vehicle campers frequenting the state park more heavily. Hike-in and canoe-in campsites were not full during most of the season. Mosquitoes and flies tend to keep the numbers down during the summer, with camping being heavier in spring and fall. Group camping is popular, particularly on weekends, and is heaviest in the summer.

Beach Use. The Maryland portion of the seashore has two lifeguard-protected beaches--one in the state park and one in the NPS

North Beach developed area. Even on weekends and holidays, demand did not exceed the supply of parking spaces for these areas. During 1979, 512,000 visits were recorded at the Maryland end of the island. Most visitors concentrated around the beaches and campgrounds, while others drove or hiked along other portions of the beaches.

The Virginia portion of the island has one lifeguard-protected beach opposite a large parking area. In 1979, there were 1,170,000 visits to the beach area. Heavy visitation resulted in a one-off/one-on parking situation on eight separate occasions during the 1979 summer season. There were two weekends when the beach area was closed for short periods of time. The longest closure was four hours on the Sunday before Labor Day. The number of closures has remained fairly constant. There have been only four or five weekends each summer without closures.

ORV Use. Surf-fishermen and vehicle-oriented day visitors participate in ORV recreation. It is estimated that ORV use on the island reached 29,000 vehicles last year. There is a 12-mile-long sand trail below the North Beach developed area that is open to ORVs. However, the National Park Service has limited use in this area to 145 vehicles at any one time. During the past summer, several days required the one-off/one-on method to keep the number of vehicles from exceeding the limit.

In Virginia, 3½ miles of beach are open to ORVs. The Fish and Wildlife Service has limited use to 42 vehicles at any one time. ORV use was regulated nearly every holiday and summer weekend by the one-off/one-on situation. In 1980 there were 26 closures compared to 23 in 1979 and 19 in 1978. The frequent closures resulted in more and longer waits for ORV users. The origins of ORV visitors using the Virginia beach were similar to the overall visitor origin studies done by the City University of New York (Maryland, 35 percent; Virginia, 22 percent; and Pennsylvania, 15 percent).

Interpretive Activities. All three agencies have increased their interpretive programming during the past few years. Nearly 371,117 interpretive contacts were made in 1979 that included visitor centers, evening programs, beach walks, guided canoe trips, guided boat tours, and individual field contacts.

Self-guiding trails and a one-way motor nature trail are also available to visitors. The FWS motor nature trail at Chincoteague was used by more than 147,800 visitors in 1979. Bird-watching is an attraction at Assateague during the fall and spring migrating seasons and is heavily responsible for lengthening the visitor season.

The interpretive canoe program started in 1974 at North Beach was often booked five to six days in advance last summer. The backcountry canoe-in camping program in 1975 followed the canoe program in popularity.

Bay Use. Limited developments at both ends of the island allow for access to the bay for clamming, crabbing, and canoeing. Improved access has generated a great deal of interest in these activities.

Bicycling. Nearly 25,000 bike entries were recorded at Chincoteague in 1977 despite the fact that there are few facilities for bicyclists. Bicyclists still have to compete with auto traffic to get to the beach. Less than 1,000 people entered the North Beach developed area by bicycle, primarily because of the greater distance from accommodations and the dangerous conditions on Maryland 611.

Horseback Riding. In past years, spring and fall have been popular times for horseback riding. Only 2,300 people participated in horseback riding in 1977; however, this recreational activity has been growing in popularity. In November 1977, a quarantine of the Assateague ponies temporarily eliminated horseback riding on the Maryland portion of the island. In October 1978, the Maryland section was reopened for horseback riding between October 9 and May 15. Horseback riding is not permitted during the remainder of the year when the disease may be transmitted by blood-sucking insects.

Hunting. A hunting program is administered by the National Park Service on the Maryland portion of the seashore. The program includes hunting for deer, waterfowl, quail, and rabbit. Approximately 450 hunters used this area for small game and deer hunts in 1979-80. Another 1,500 visitors hunted waterfowl from NPS blinds or used other federal lands for the same purpose. The number of waterfowl hunters varies from year to year and is largely dependent on the weather. If it is warm and clear during the hunting season, then the number of hunters will be down. The quality of waterfowl hunting in the Maryland portion of the island could be improved substantially. Past efforts have been hampered by too many blinds in a small area. Much of the prime hunting area north of the Virginia line has been retained by former owners for hunting purposes and is not available for public hunting.

The Chincoteague National Wildlife Refuge recorded 3,644 hunting hours by 126 hunters that resulted in a harvest of 73 sika and white-tailed deer in the 1979 season.

Visitation Trends

Overall, island-wide visitation has been increasing for several years. Visitation in the Virginia portion has generally been up, while the Maryland portion, until a sharp drop occurred in 1979, has appeared to stabilize. Virginia accounted for 60 to 70 percent of the total island visitation and experienced greater pressures than the north end because of the limited land base. Recently, the remainder of Virginia's barrier islands were dedicated to preservation status, so undoubtedly these pressures will continue. Unless ocean beach elsewhere is newly dedicated to relatively intensive recreation, which is unlikely, future populations will put more pressure on Assateague Island. Only major changes in the cost or availability of energy for automobiles or changes in leisure patterns will alter this trend.

Future increases in camping will continue to be met by private campgrounds along Maryland 611 and within the town of Chincoteague, Virginia. Length of waiting lines and the number of campers turned away

over the last few years in Maryland suggest a stabilization of demands. If visitation does decrease in the near future, increased lengths-of-stay would work to stabilize overall hours of visitation to Assateague.

The demand for a day beach will continue to increase in the Virginia portion of the seashore. Two factors may cause this demand to be felt elsewhere on the island. One factor is the regularity of refuge beach closures, and the other factor is the difficulty of getting through the town of Chincoteague. The present road system inadequately handles large volumes of traffic. Both conditions could serve to discourage visitors so that visitation could level off instead of increasing at a rate of 5 to 8 percent per year. Regional demand, as indicated by state comprehensive outdoor recreation plans, is projected to increase as developed areas (Ocean City) become more crowded and the supply of park areas fail to keep up with this demand.

ORV use on Assateague Island is increasing. Closures and one-off/one-on situations are likely to continue to increase. Adding to this situation is the closure each year of previously open beaches in Delaware, Maryland, and Virginia. No new proposals exist that would allow additional ORV use of ocean beaches.

Bicycling has great potential to increase at both ends of the island. If competition with cars can be eliminated and trails developed for bicycles, then significant increases will be realized.

Comparable annual hunting data is available only for the 1970-71 period to the present. Data indicate no clear trends in hunting use as the number of waterfowl hunters on Assateague has increased only 17 percent since 1970-71 and was virtually the same in 1974-75 and in 1979-80. However, the number of deer hunters is increasing.

Visitation Trends

Overall, island-wide visitation has been increasing for several years. Visitation in the Virginia portion has generally been up, while the Maryland portion, until a sharp drop occurred in 1978, has appeared to stabilize. Virginia accounted for 60 to 70 percent of the total island visitation and experienced greater pressures than the north end because of the limited land base. Recently, the remainder of Virginia's barrier islands were dedicated to preservation status, so undoubtedly these pressures will continue. Unless ocean beach elsewhere is newly dedicated to relatively intensive recreation, which is unlikely, future populations will put more pressure on Assateague Island. Only major changes in the cost or availability of energy for automobiles or changes in leisure patterns will alter this trend.

Future increases in camping will continue to be met by private campgrounds along Maryland 671 and within the town of Chincoteague. Length of waiting lines and the number of campers turned away

THE PLAN

MANAGEMENT ZONING

Management zoning establishes a broad framework for future management protection and use of lands within the national seashore. The zone and subzone designations are shown on the map in the inside back cover. Proposed uses and facilities in each of these zones and subzones are shown in table 2. Specific management treatments of resources within these zones are found in the appropriate "Resource Management" section.

Natural Zone

The natural zone comprises the largest portion of Assateague Island and contains the significant outstanding natural features of the barrier island, from beach face to bayside, in Maryland and Virginia.

The traditional recreation subzone is that area legally open to ORVs. In Maryland, this area generally extends from the ocean to the western edge of the ORV sand trail, which extends from the southern end of the North Beach developed area to the Maryland/Virginia state line. This area also includes the ORV cabled access to the bayside at the north end of the area known as the Big Fox Hill levels, about 5 miles south of the North Beach developed area. In Virginia, this subzone extends from the low-tide line to the foredune, or perimeter marker from a point south of the lifeguard-protected beach area, westward around Toms Cove Hook, to the end of Fishing Point. The primitive subzone comprises the remainder of the natural zone that includes all NPS lands north of Assateague State Park, most NPS lands bayward of the ORV sand trail, and in Virginia, all lands bayward of the existing and proposed developments.

The natural zone comprises 8,065 acres, or 91 percent, of NPS national seashore lands in Maryland; 715 acres, or 8 percent, of the national seashore lands in Virginia (Chincoteague National Wildlife Refuge) are managed by the National Park Service through the October 1979 memorandum of understanding with the Fish and Wildlife Service. Overall, the primitive subzone contains 7,165 acres, or 82 percent, of the natural zone, and the traditional recreation subzone contains 1,615 acres, or 18 percent.

When the natural zone is free of retained rights, wilderness designation will be reconsidered.

Development Zone

All general park improvements are contained within the development zone. The administrative development subzone includes the NPS headquarters/visitor center at the west end of the Verrazano Bridge. The general recreation/development subzone includes all parking areas, picnic areas, campgrounds (except canoe-in and hike-in campsites), lifeguard-protected beaches, bathhouses, interpretive trails, bayside access facilities, and all ranger/visitor contact stations.

**TABLE 2:
PROPOSED USES AND
FACILITIES**

**ASSATEAGUE ISLAND
(MARYLAND LANDS)
MANAGEMENT ZONING**

		ASSATEAGUE ISLAND MANAGEMENT ZONES AND SUBZONES				
		DEVELOPMENT ZONE		NATURAL ZONE		HISTORIC ZONE
		GENERAL RECREATION / DEVELOPMENT SUBZONE	ADMINISTRATIVE DEVELOPMENT SUBZONE	TRADITIONAL RECREATION SUBZONE	PRIMITIVE SUBZONE	
PROPOSED USES	CAMPING: WALK-IN, GROUP, VEHICLE PULL-THROUGH	■				
	HIKE-IN CAMPING			■	■	
	CANOE-IN CAMPING				■	
	CLAMMING AND CRABBING (BAY FISHING)	■				
	CANOEING				■	
	HIKING	■		■	■	
	HORSEBACK RIDING	■		■	■	
	HUNTING WITH MECHANIZED ACCESS (WATERFOWL BLINDS PROVIDED)				■ 1	
	SELF-INTERPRETED	■		■		
	GUIDED INTERPRETIVE ACTIVITIES	■	■	■	■	■
	ADMINISTRATION	■	■			
	MAINTENANCE	■	■			
	HOUSING	■	■			
	ADAPTIVE USE OF STRUCTURES					■
	INFORMATION	■	■			
	LIFEGUARD-PROTECTED BEACH	■				
	SURF FISHING	■		■	■	
	BEACH COMBING	■		■	■	
	PICNICKING (TABLES AND TRASH CANS)	■				
	BICYCLE RIDING	■				
	AUTOMOBILE ACCESS (ON PAVED ROADS AND DRIVES)	■	■			
	OFFROAD VEHICLE ACCESS (OFF PAVED ROADS)			■	■ 2	
	HUNTING WITH NONMECHANIZED ACCESS (NO BLINDS)				■	
PROPOSED FACILITIES	RECREATIONAL SUPPORT: BATHHOUSES, CONCESSIONS	■				
	INTERPRETATION	■	■			
	INFORMATION	■	■			
	CAMPEROUNDS: WALK-IN, GROUP, VEHICLE PULL-THROUGH	■				
	ADMINISTRATION	■	■			
	MAINTENANCE	■	■			
	HOUSING	■	■			
	ORV CAMPGROUND: SNOW FENCING, SAND-SURFACED PARKING			■		
	SAND ROADS WITH CABLED WHIPS CONTROL			■		
	HUNTING BLINDS				■	
	HIKING TRAILS (UNPAVED)	■			■	
	BICYCLE TRAILS (PAVED)	■				
	BOARDWALKS (BAY ACCESS)	■				
	BOARDWALKS (BEACH ACCESS)	■				
	HIKE-IN CAMPSITES			■	■	
	CANOE-IN CAMPSITES				■	
	PAVED ROADS AND PARKING	■	■			
	SNOW FENCING FOR BUNE STABILIZATION	■				

1 SOUTH OF NORTH BEACH ONLY

2 FOR HOLDERS OF RETAINED RIGHTS OR IN DESIGNATED AREAS

The development zone contains 815 acres, or 9 percent, of NPS lands in Maryland and 185 acres, or 21 percent, of NPS-managed lands in Virginia. Of these 1,000 acres, the general recreation/development subzone contains 990 acres, or 99 percent, and the administrative development subzone contains the other 10 acres, or 1 percent, of the development zone.

Historic Zone

The historic zone includes the 11 cultural resource sites or structures previously described in this document. This zone contains about 10 acres, or 1 percent, of the NPS lands in Maryland and about 25 acres, or 2.8 percent, of NPS-managed lands in Virginia.

RESOURCE MANAGEMENT

Natural Resources

All Zones. Management of exotic plants and animals will prevent the introduction of additional nonnative species to Assateague Island. Existing exotic species may be controlled if proliferation threatens to significantly alter the character of native flora and fauna. Mechanical removal, or biological control, will be preferred over the use of herbicides.

The Assateague ponies will be managed as a desirable feral species. The existing fence will be maintained at the state line to prevent or reduce the frequency of the mixing of Maryland (NPS) and Virginia (Chincoteague Volunteer Fire Company) herds in an effort to prevent or slow the rate of spreading equine diseases. A pony management action plan will be developed to thoroughly evaluate all feasible management alternatives based on six years of past scientific investigations. Visitor-owned horses will be allowed on the island at their own risk during the seasons when blood-sucking flies and mosquitos, the most important vectors of those diseases, are inactive. A public awareness program will be carried out to acquaint horse owners with possible, although improbable, danger of infection.

Natural Zone: Primitive Subzone. Visitor-operated vehicles will be allowed in the primitive subzone only to facilitate winter waterfowl hunting, to provide limited and controlled access to the bay, and to accommodate access by holders of retained rights. Only properly equipped ORVs may be used for overland access to these sites. Roads leading to inholdings will be fitted with locked chains, with keys given only to holders of retained rights. Access will be allowed via NPS-designated trails only.

No resource "manipulations" will be allowed in or in close enough proximity to the primitive subzone to have a significant impact on that area. No attempts will be made to protect against or mitigate the results of natural forces affecting the primitive subzone except as an indirect result of artificially maintaining the dune line within or adjacent to the development zone.

Rapid westward erosion of the north end of Assateague Island has been brought about by sand starvation of the littoral drift resulting from the Ocean City jetties. These jetties were built by the U.S. Army Corps of Engineers to stabilize the inlet for navigation. The National Park Service does not assume responsibility for this rapid erosion and will not alone seek funds allocated for mitigating measures, such as jetty modification or sand dredging.

Recently, the Corps of Engineers completed a study of the Sinepuxent and Isle of Wight bays, Ocean City Inlet, and adjacent coastline. The National Park Service has strongly supported this study and will participate with the Corps, the Council of Ocean City, the Worcester County Commissioners, and the Maryland State Tidewater Administration to implement a plan for slowing, stopping, or reversing the shoreward erosion of northern Assateague Island.

The present hunting program for upland game, waterfowl, and deer (as regulated by state and federal laws) will be continued in Maryland. As retained hunting rights expire, additional locations will be considered for public waterfowl hunting.

Trapping of furbearers (i.e., fox, muskrat, raccoon, otter, and rabbit) has been allowed on Maryland lands in this subzone. However, questions have been raised about the intent of Congress in not specifically authorizing trapping as it had in other parks. The continuation of trapping will be based on the resolution of legal questions.

Habitats of endangered flora and fauna will be identified and protected through signing and use restrictions if negatively impacted by visitor activities.

Natural Zone: Traditional Recreation Subzone. The traditional recreation subzone will continue to be managed for multiple uses that include overland travel by properly equipped ORVs. Regulations concerning required equipment permits and maximum allowable numbers will be maintained. Modification to these regulations will be fully justified, and NEPA documents deemed necessary will be developed. The existing limits for ORVs are 145 for the Maryland portion of the subzone and 42 for the Virginia portion. A new entrance loop and registration booth will be constructed at the entrance to each section of the subzone (Maryland and Virginia) in order to stack waiting vehicles and provide information more efficiently.

Dune breaks occurring in this subzone may be repaired on a discretionary basis, as necessary, to protect improvements or maintain access to retained rights areas. Because overwash is necessary for the natural maintenance of certain habitats adjacent to the primitive subzone (e.g., wash flats), dune maintenance solely to prevent overwash will not be practiced in this subzone.

In the Maryland portion of the subzone, a sand trail for ORVs will be maintained the length of the subzone just bayward of the dune line.

Dune crossings will also be maintained to allow ORV access to the beach from the sand trail. The sand trail will be confined by a cable fence, where necessary, to prohibit vehicles from entering undesignated areas. During hunting seasons, ORV operation may be permitted bayward of the cable fence to serve the NPS-maintained waterfowl hunting blinds.

Cultural Resources

Compliance with section 106 of the National Historic Preservation Act has been completed in accordance with the programmatic memorandum of agreement (PMOA) executed in the NPS planning process pursuant to 36 CFR 800 (see appendix D). Pursuant to the PMOA, consultation will continue with the Virginia and Maryland state historic preservation officers throughout the planning process to ensure that the plan is implemented in accordance with applicable NPS policies and guidelines to avoid or satisfactorily mitigate any adverse effect on cultural resources included in or eligible for inclusion in the National Register.

The lands of Assateague Island National Seashore have been surveyed for historic sites and structures. Of those identified and evaluated, only one--the Assateague Beach Coast Guard station on Toms Cove Hook--was found to meet the criteria for eligibility to the National Register of Historic Places (January 1980).

A comprehensive archeological survey and evaluation of NPS-owned and -administered lands will be undertaken, in compliance with Executive Order 11593 and the regulations of the Advisory Council on Historic Preservation (36 CFR 800). In the meantime, any ground disturbance will be preceded by an archeological site survey.

Several shipwrecks are located off the oceanside shore of Assateague Island. The shipwrecks will be left to deteriorate naturally and will be informally interpreted.

Eleven identified historic sites and structures are located in the historic zone. The historic zone will be managed to protect these cultural resources from disturbance caused by construction, misuse, or vandalism. Specific management plans for individual sites and structures are as follows.

Maryland. The Pope Island boathouse, recently relocated to North Beach, will be used for equipment storage and other NPS park operation purposes. No major changes will be made in the building's exterior appearance.

The site of the North Beach lifesaving station will be marked and interpreted.

Green Run Cemetery will continue to be fenced and periodically maintained but will not be marked or interpreted. Disturbance of any kind will be avoided.

The sites of Green Run Village, Green Run Inlet lifesaving station, Scotts Ocean House, and Birchs Saltworks will be protected to the extent that ground-disturbing activity at these sites will be avoided. If ground disturbance is unavoidable, it will be preceded by an archeological survey and appropriate mitigating measures.

Virginia. An archeological survey of Virginia lands will be undertaken at the same time as Maryland lands. In the meantime, any ground disturbance will be preceded by archeological reconnaissance.

The Assateague Beach Coast Guard station complex consists of a headquarters/residence, garage, steel observation tower, boathouse, wharf, and breakwater. The plan for this complex includes stabilization, adaptive use, and interpretation.

All structures will require stabilization to correct unsound or deteriorated conditions. This work will be guided by a historic structure report. The headquarters/residence will continue to be used as a residence for seasonal employees and will be rehabilitated for that purpose. The boathouse will be used for storage and as a classroom for environmental education. The garage will be used for storage and shop purposes. The entire complex will be interpreted as an example of a period Coast Guard station, and the exterior appearance will not be altered.

The ruins of the Seaboard Oil and Guano Company fish factory will not be stabilized but left to deteriorate as at present. The site will be interpreted as an early industry on Assateague and as a striking illustration of the island's changing configuration. The ruins, particularly the low brick walls remaining on the concrete foundations, are dangerously unstable in places; they are accessible to visitors and tempting for children to climb on. As a safety precaution, unstable sections of the ruins will be knocked down and the materials left in place. If this action and the posting of signs warning visitors to stay off the ruins are not sufficient, the ruins will be permanently fenced. Before the structure disintegrates completely, samples of the oyster aggregate concrete foundations and brickwork should be salvaged and displayed as illustrations of earlier construction methods.

The site of the Conant Brothers fish factory will be protected to the extent that ground disturbance in the area will be avoided if possible. The site will not be marked or actively interpreted.

VISITOR USE AND INTERPRETATION

The National Park Service will promote visitor use and appreciation of Assateague Island's many resources by presenting a wide range of recreational activities and a diverse interpretive program. The existing recreation areas will be maintained, and the capacity of some facilities moderately increased. New visitor facilities will improve the visitor experience on the island.

Maryland

Access. Automobile access to the Maryland portion of Assateague Island will remain via Maryland 611 and the Verrazano Bridge. Separate entrance stations will be maintained by the National Park Service and Maryland Park Service. A new NPS entrance station will be designed to efficiently direct visitors to park resources. Paved roads on the island will be maintained but redesigned in certain sections to improve safety conditions.

Planning analysis and public review have indicated no immediate need for a major public transit system to the Maryland lands of Assateague Island. However, public transit should be reevaluated periodically as land use and visitation patterns change. The National Park Service favors establishing a shuttle system from the commercial campgrounds along Maryland 611 to the island and will work with campground owners to establish such a system.

Access to the bay on the causeway will be improved for visitors.

The National Park Service will work with the state of Maryland to provide a safe and functional bike trail to the island and will design bike trails to all North Beach visitor facilities.

The lifeguard-protected beach and bay access areas in the North Beach developed area will be more accessible to pedestrians with the addition of boardwalks over dunes and along the causeway shore.

The north end of Assateague Island beyond the state park will be accessible only by foot or by boat. Visitors currently have to walk in from the Assateague State Park parking area or hike all the way from the North Beach area. Because there is no pedestrian lane over the Verrazano Bridge, visitors are discouraged from parking at the mainland visitor center parking area and walking to the north end. Improved parking near the state park will allow hikers to park closer to the north end of the island.

A few people paddle across Ocean City Inlet on surfboards, but more visitors reach the north end by boat from Sinepuxent Bay. Because the bay is shallow near the island, most boaters anchor their boats at different points near the northernmost 4 miles and then wade ashore. For safety and resource preservation purposes, consideration will be given to consolidating boat anchor locations to three or four areas.

Information and Orientation. Information and orientation will be provided at all major access points, visitor use areas (lifeguard-protected beaches and campgrounds), and at key locations on the mainland (commercial campgrounds and along the regional highway system). Specialized safety and beach information for pedestrians and vehicles will be provided at major dune crossings. The NPS visitor center, located on the mainland west of the Verrazano Bridge, will continue to serve as the major orientation and information center. A new or redesigned headquarters/visitor center will continue to operate year-round but with limited winter hours.

Interpretation. Interpretation at Assateague Island will convey the theme of change. Visitors will be made aware of the constantly occurring changes on the island--from daily events, such as winds and tides through spectacular changes wrought by storms, to the long-term processes that result in the island's movement south and west. As part of understanding these natural processes, people will gain understanding of man's "manipulation" and what some of the long-term effects have been. Visitors will also come to understand that many recreational experiences--clamming, fishing, wildlife viewing, or simply enjoying the beach--are totally interdependent with the island's continual changes. Demonstrations of recreational activities, such as surf fishing, canoeing, crabbing, and clamming, will be given.

Interpretation of the barrier island's geology, flora, and fauna will be provided at the visitor center through exhibits and an aquarium. Natural history films and naturalist-conducted slide programs will be regularly presented in a new multipurpose interpretive facility within the visitor center. The seashore library is oriented to marine natural history and will be available to the public for onsite research. Books and other items will be sold at the visitor center through a cooperating association.

The existing interpretive program will continue with few major changes. Naturalists will conduct aquarium talks and guided activities daily during the summer and on weekends in the spring and fall. During the rest of the year guided nature walks will be given to school and special interest groups upon request. In addition to scheduled activities, naturalists will provide roving contact in the campgrounds and at major visitation areas.

After bike trails are designed, naturalists will lead bike rides through the life zones traversed by these trails. Bicycle racks will be provided at all major activity areas.

Evening programs will continue to be offered at campfires on the beach, and a new amphitheater will allow the evening interpretive program to be expanded. This facility will also house a variety of daytime children's activities and could serve as a picnic pavilion.

The Candleberry Trail, a self-guiding nature trail, will be extended and redesigned to allow visitors to walk through all of the island's life zones except the beach. Several naturalist-guided walks will be conducted, and a new wayside exhibit interpreting the North Beach lifesaving station will be placed at the existing parking area. Wayside exhibits will be set up elsewhere to interpret the ponies, salt marsh, wetland birds, crabbing, and clamming.

On the primitive north end of Assateague Island, guided interpretive programs will be limited. No wayside exhibits or self-guided nature trails are planned for the north end.

Recreation. Swimming and sunbathing on the beach are two of the most popular recreational activities at Assateague. These activities will continue to be centered around the North Beach developed area. The lifeguard-protected beach will be expanded to benefit organized groups and some family campers in the North Beach campground. The North

Beach bathhouse will be upgraded and winterized to serve campers in the off-season.

Surf fishing is another prime beachfront activity that is often done at night. Fishermen may obtain a permit to stay and fish overnight. The existing 20-car parking area will be expanded to accommodate 30 cars. Surf-fishermen may also park in the state park parking area and walk north to avoid congested areas.

Group and family picnicking is a day activity that is usually incidental to other visitor pursuits. The National Park Service has one picnic area oceanward of the existing North Beach parking area. A new picnic area will benefit bayside enthusiasts who want to picnic with a view of Chincoteague Bay. The National Park Service will make a portion of each picnic area accessible to handicapped visitors.

Bayside activities that include clamming, crabbing, mussel gathering, canoeing, and wildlife observation are popular with many visitors. Another bayside access area will be provided at the west end of the causeway to benefit visitors to this area. Farther east and on the south side of the causeway, another bayside trail will be upgraded to provide excellent crabbing opportunities in deeper water. The existing 10-car parking area at this location will be expanded to accommodate 20 cars.

Assateague Island has traditionally been used by ORV surf-fishermen. A cabled sand trail, extending behind the dunes 12 miles to the Virginia state line, will allow ORVs access east to the beach but prevent access west into the primitive zone except by holders of retained rights and by hunters during the hunting seasons. An area of the bayside near the Big Fox Hill levels will be accessible to ORVs via a cabled spur trail.

The existing ORV overnight parking area will be maintained at the present location. Self-contained vehicles will be permitted to park overnight, but camping trailers will not be allowed.

Camping has always been a prime summer activity on Assateague Island. The National Park Service will attempt, through design and management, to provide a camping experience different from that provided by the state park. The two existing campgrounds offer a choice between bayside and oceanfront settings.

The larger North Beach campground will be redesigned to improve traffic flow and efficiency. Approximately half the campsites will be designed for tent campers only. Campfires will be allowed but only in the fire rings provided.

The present system of backcountry hike-in and canoe-in campsites will be maintained. These systems are designed to provide overnight facilities in the backcountry. Each site has a designated capacity, camping is on a first-come/first-served basis, and registration and a permit are required. Backcountry camping is allowed year-round. A portable chemical toilet and picnic table may be provided at some backcountry campsites.

The hike-in and canoe-in campsites are spaced in a manner that allows the hiker or canoeist flexibility. Additional sites for either system may be added as retained rights by former landowners expire. Use of any site may be opened or closed to prevent significant resource degradation or for visitor safety.

Horseback riding is permitted on established paved roads, sand trails, and beach faces during the season when disease vectors are inactive. Overnight camping will be limited to one group with a maximum of 25 horses. Overnight containment of animals and gear will be restricted to a designated area at North Beach.

Pets are not allowed on the primitive north end of Assateague Island, on NPS lifeguard-protected beaches, and in the hike-in or canoe-in campsites. Pets are allowed elsewhere in the Maryland portion except in Assateague State Park, but they must be on a leash at all times. These regulations are necessary for safety, sanitation, and preservation of wildlife.

On the primitive north end of Assateague Island, only low intensity recreational activities will be permitted, such as swimming, beachcombing, surf fishing, and bird and wildlife observation. No ORVs will be allowed in this area. Most beach use will probably be concentrated in the first mile or two north of the state park; however, some hikers will take packs and hike to the jetty.

Overnight camping on the north end will be limited initially to one overnight hike-in campsite located in an area that will not interfere with bird-nesting activities.

Virginia

Access. Automobile access to Toms Cove Hook, the NPS-administered area of the wildlife refuge, will continue to be via Virginia 175. Public transportation to and from the beach may be provided through the development of a shuttle system by local campground and motel owners. Development of a local shuttle system to benefit visitors will be encouraged. Visitation and alternative transportation systems will continue to be assessed.

Bicycle access will be encouraged by extending a safe bicycle trail off the main beach road from Chincoteague Island to the beach. A bicycle trail may eventually be extended along Toms Cove Hook to the Assateague Beach Coast Guard station.

Boat access will be maintained at the present location.

Orientation and Interpretation. The Toms Cove Hook visitor center, which is open year-round, will continue to be the focal point for orientation and information services. Natural history exhibits and book sales will also be offered.

The present interpretive program at Toms Cove Hook will center around the theme of change in the island's environment. In summer, beach and marsh walks will be provided to interpret the area's natural history, and demonstrations of surf fishing and surf rescue will be offered. Walks and other activities will be evaluated constantly, and new programs will be established when there is a need.

Evening slide programs illustrating the theme of barrier island change are currently held in the screened-in amphitheater. Evening programs will be held in a new auditorium several nights a week in the summer season. Time will be set aside for campfire programs on the beach.

In the off-season, scheduled interpretive programs will be given only on weekends, with scheduled programs available on request for local school groups and other organizations during the week. Opportunities for environmental education, both during the school year and in the summer, will be expanded through the use of the Toms Cove national environmental study area. Study area facilities will be in the boathouse of the Assateague Beach Coast Guard station; the history of the Coast Guard station complex will be interpreted as part of the environmental education program.

The short nature trail will emphasize animal and plant adaptation in Assateague's changing environment. New panels will be provided for the history wayside exhibit that is part of this trail. The exhibit will provide information on the oyster and fish industries at Toms Cove and will identify the ruins of the Seaboard Oil and Guano Company fish factory; the ruins are visible from the trail.

Recreation. Toms Cove is heavily used in the summer for water-oriented recreation--swimming and sunbathing on the beach, surf fishing, clamming, and crabbing. Most crabbing is done in the area north of the main beach access road adjacent to the visitor center and is subject to state regulations. Clamming in Toms Cove is restricted to areas above the mean low water level due to some private ownership of clamming and oystering grounds. Beach use is most intensive at the lifeguard-protected beach near the main parking area. NPS lifeguards are stationed daily from mid-June to Labor Day. Unprotected beach areas are used for swimming, surfing, and surf fishing. The 10-mile section of the primitive beach north of the main parking area and outside the NPS-managed area of the wildlife refuge will be accessible by foot only to minimize visitors' impacts on the resources of the refuge.

Most recreational activities will be centered at the Toms Cove Hook developed area, where a parking area, bathhouse, and beach access ramps are located. To improve safety conditions and to alleviate congestion that has often developed on peak use days, several changes in access road realignment and facility locations will be made.

The existing crabbing trail will be improved, and, where necessary, boardwalks will be constructed to reduce trail deterioration and to allow access for the handicapped.

Redeveloping the beach access area will increase visitation by providing potential accommodations for up to 200 additional private vehicles, shuttle service, bicycle access, bathhouses, and additional access points for the handicapped. This increased capacity will allow for a total beach use that is far short of the carrying capacity identified in a Draft Environmental Impact Statement prepared in 1974 for the proposed Toms Cove Hook developed area. That document identified a capacity of 58 people per acre of beach, or one person for each 1.4 linear feet. Currently, access to the beach area is limited by available parking and ORV regulations to slightly more than 3,000 people at any one time. Development of the Toms Cove Hook area will allow an additional 1,400 visitors to the beach area without additional impacts from construction. A major part of this increase will result from anticipated shuttle bus service and bicycle access, with the remainder provided by the added parking spaces.

ORV use constitutes a significant portion of visitation in the hook area. ORV users are required to obtain a permit, and vehicles must meet certain equipment standards. Currently, only 42 vehicles are permitted on the hook at any one time. The National Park Service will continue to monitor ORV use to identify possible conflicts with other public uses and detrimental effects on the natural resources. The Fish and Wildlife Service and the National Park Service will jointly investigate the possibility of conflicts, and future management of ORV use will be based upon that study.

Day and overnight hiking and horseback riding are popular at Toms Cove in the fall and spring. To improve the hike-in camping experience, a hike-in site near the state line will be relocated by the Fish and Wildlife Service to a site approximately 4 miles south of the state line. Hike-in camping at another site near the Assateague Beach Coast Guard station has been eliminated because it was too close to an area used by ORVs and was not a satisfactory camping spot. In the future, horseback riding and access will be limited to the fall, winter, and spring months on access roads and the beach south of the Coast Guard station. Limiting horseback riding will reduce conflicts with other users and the possibility of transmitting equine infectious anemia to the Assateague ponies. Horseback riding will continue to be monitored to identify possible conflicts with other activities.

GENERAL DEVELOPMENT

The National Park Service recognizes its obligation to provide access to visitor facilities for the handicapped. All facilities or portions of the facilities will be designed to be accessible by the handicapped according to existing NPS policy.

Refer to the Management Zoning/Cultural Resources/Developed Areas map in the inside back cover for the locations of the following general development proposals. Table 3, at the end of this section, contains the schedule for development and a cost estimate summary. Table 4 presents a schedule for other management actions.

Maryland

Headquarters/Visitor Center Area. The mainland NPS headquarters building, currently used for administrative offices, was originally constructed as a maintenance garage. Later, a visitor center was constructed nearby and connected to the headquarters building by a breezeway. Due to the existing use of these structures, NPS vehicles must be stored outside where they are subject to rapid deterioration brought about by salt corrosion.

The existing headquarters building will be reconverted to a garage and shop. A new headquarters building will be constructed with space for administrative offices and a 60-seat auditorium.

Heavy seasonal visitation to Assateague Island makes privately owned housing almost unavailable to seasonal employees and results in high resort area rental rates. For these reasons, housing for NPS seasonal employees will be constructed on the mainland to permanently replace the acquired summer homes and portable structures now in use throughout the island.

North Beach Developed Area. A 50-car parking area will be constructed near the north boundary of Assateague State Park to serve visitors who wish to use the north end of the island. An access road from Maryland 611 will be provided to the new parking area. The National Park Service will negotiate with the Maryland Park Service for an easement for this road if necessary.

The National Park Service will also work with the Maryland Park Service to facilitate the realignment of the severe curves along North Beach Drive.

The existing North Beach lifeguard-protected beach will be expanded southward adjacent to the new campground sites. The existing bathhouse will be upgraded for winter operation. Additional pedestrian boardwalks with wheelchair ramps will be provided from the beach to the campground sites.

A new NPS entrance station and entry lane will be constructed at the north end of the North Beach developed area. A new facility will be constructed for camper registration at the south end of the entrance station. This facility will also serve as a ranger station. A 50-car parking area will be constructed to serve visitors waiting for campsites.

The existing Bayside campground on the causeway will be completely redesigned (though not expanded) to provide 40 paved pull-through campsites. A cold water bathhouse(s) will be provided. The new campground will be served by a new one-way access road leading to and from a new bayside access road, which will lead westward from North Beach Drive to a new developed area near the end of the causeway. A small picnic area, a 50-car parking area, a boat launch for cartop-sized watercraft (canoes, sailboats, etc.), and a small building to house rental clamming and crabbing equipment will be provided in this new developed area. A boardwalk will be provided to direct visitors camped in the

Bayside campground to the lifeguard-protected beach, bathhouse, and adjacent activity areas.

The existing 10-car parking area on the south side of the new bayside (causeway) access road about midway between North Beach Drive and the new Bayside developed area will be expanded to accommodate 20 cars. The existing trail from the parking area will lead southwest to a boardwalk (approximately 100 feet in length) at the water's edge. The boardwalk will provide easy access to the deep water south of the causeway for crabbing.

The organized group camping area will be relocated to an area just south of the existing 500-car day parking area. The camping area will contain five group sites, each with a capacity of 25 persons. An access trail and boardwalk will be provided from the group camping area to the lifeguard-protected beach. A parking area will be provided for this capacity.

The North Beach 500-car parking area will be maintained at the present capacity.

The existing North Beach vehicle campground will be redesigned to provide a one-way entrance/exit road separated from North Beach Drive. Sixty vehicle campsites will be provided in four clusters. Each cluster will have a beach access foot trail and boardwalk for dune crossing. The lifeguard-protected beach will be moved southward a short distance to serve one or more of the vehicle campsite clusters. Bathhouses will be provided.

Present plans by the state of Maryland to establish an offroad bicycle trail along Maryland 611 to the island are supported by the National Park Service. Bike trails to all North Beach visitor facilities will be designed.

A 70-site walk-in campground with parking will be provided south of the vehicle campground. This area will be served by a one-way access road, and a bathhouse(s) will be provided. Approximately three beach access trails with dune crossings will also be provided.

The existing 20-car parking area for surf-fishermen (and general beach access) will be expanded to accommodate 30 vehicles.

The Ferry Landing Road and naturalist's shack will be retained. The old ferry landing has a 20-car parking area that is heavily used; however, the surrounding salt marsh prevents further expansion of this lot. The existing parking area on the south side of the Ferry Landing Road west of its junction with North Beach Drive will be expanded to accommodate 25 cars. The parking area will serve as a trailhead for Candleberry Trail. The extended 1-mile-looped trail will cover most of its existing alignment and will utilize existing boardwalk and observation platform sites.

At the Great Egging Island, a boat-in campsite will be developed.

Acquired Structures. Generally, all structures on Assateague Island acquired from holders of retained rights will be removed. Some

appropriate structures may be temporarily retained for administrative facilities or housing for scientific investigators.

Utility Relocations. All utility lines on NPS-owned lands will be relocated underground in a phased program to eliminate overhead power lines.

Wastewater Treatment. Wastewater from island facilities will continue to be collected and disposed of by a commercial firm. In the event this service would become unavailable or overly expensive, a separate study of alternatives would be done by the National Park Service, in order to determine the most feasible course of action. Compliance procedures necessitated by that decision would be completed at that time. An estimate for an additional mainland treatment plant capable of handling the volume of wastes currently collected from island facilities is included in table 3.

Virginia

Toms Cove Hook Developed Area. Several new developments will be provided within the NPS-managed area of Assateague Island. Toms Cove Road will be realigned to provide continuous traffic southward down the hook and to provide necessary space for proposed developments east of the road. Access to the existing parking area and NPS visitor center/ranger station will be via a spur road with a stop or yield sign at its junction with the main access road. A new bicycle trail will be provided from the FWS Wildlife Drive to the Toms Cove Hook developed area via the east side of Swan Cove Impoundment.

The existing bathhouse will be removed, and a new bathhouse will be constructed near the existing visitor center. A picnic area will be provided south of the new bathhouse. A 200-car parking area with a one-way access loop for automobiles and buses will be provided south of the new picnic area. This area will replace parking spaces lost as a result of dune reconstruction necessitated by recent storm damage. A bathhouse will be provided for bathers, and a shelter will be provided for bus riders. A boardwalk will connect all visitor facilities in this activity area to beach access trails and dune crossings.

The screened-in amphitheater, which is temporary and substandard, will be removed when a new FWS-NPS auditorium is built on refuge lands by the Fish and Wildlife Service.

Utility and wastewater treatment alternatives for the proposed developments will be analyzed in the advanced planning (design) process for these facilities.

TABLE 3: GENERAL DEVELOPMENT SCHEDULE AND COST ESTIMATE SUMMARY

MARYLAND		STAFFING REQUIREMENTS				
PRIORITY	PROJECT	COST ESTIMATE*	TITLE	GRADE	WORK YEARS	AMOUNT
1	Reconvert headquarters building to a garage and shop	\$300,000	Seasonal laborer	WG-3	0.5	\$ 5,500
			Seasonal park naturalist	GS-3	0.2	\$ 2,000
	Construct new headquarters building		Program support costs			\$ 3,000
2**	Implement wastewater treatment (mainland)	\$600,000				
3	Relocate partial utilities underground (telephone, power, wells)	\$285,000				
8	Construct NPS seasonal housing (mainland)	\$240,000				
4	Construct 70-site walk-in campground (access road, foot trails, boardwalks, 2 bathhouses, and parking area(s))	\$600,000	Seasonal laborer	WG-3	0.3	\$ 3,300
			Program support costs			\$10,000
4	Redesign pull-through vehicle camping area for 60 vehicles (access road, foot trails, boardwalks, and bathhouses)	\$560,000	Seasonal laborer	WG-3	0.3	\$ 3,300
			Program support costs			\$10,000
5	Relocate group camping area with boardwalk and trail	\$ 30,800	Seasonal lifeguard	GS-4	0.4	\$ 4,400
			Program support costs			\$ 1,000

* 1978 dollars.

** Dependent upon study of alternatives for wastewater treatment/disposal.

TABLE 3 (cont.)

MARYLAND			STAFFING REQUIREMENTS			
PRIORITY	PROJECT	COST ESTIMATE	TITLE	GRADE	WORK YEARS	AMOUNT
5	Relocate group camping and 60-car parking area (30 existing)	\$ 60,000				
9	Redevelop and landscape partial headquarters site	\$ 50,000				
10	Provide Bayside access road	\$330,000				
10	Construct Bayside 50-car parking area	\$ 50,000				
10	Provide 50-car camper registra- tion area	\$ 50,000				
10	Construct Bayside boardwalk for crabbing with 20-car parking area (10 existing)	\$ 20,000				
10	Provide 30-car parking area for surf-fishermen (20 existing)	\$ 30,000				
10	Construct Candleberry Trail 25-car parking area (15 existing)	\$ 25,000				
10	Realign Candleberry Trail	\$ 500				
10	Realign North Beach Drive	\$330,000				
10	Construct 1-mile bicycle trail	\$ 40,000				
10	Provide Bayside watercraft launch	\$ 25,000				

TABLE 3 (cont.)

TABLE 3 (cont.)

MARYLAND			STAFFING REQUIREMENTS			
PRIORITY	PROJECT	COST ESTIMATE	TITLE	GRADE	WORK YEARS	AMOUNT
11	Relocate remaining utilities underground	\$200,000	Program support costs			\$ 1,000
13	Construct North Beach entrance station and entry lane	\$ 21,000	Seasonal park ranger	GS-5	0.4	\$ 5,000
			Seasonal park ranger	GS-4	0.4	\$ 4,400
14	Construct North Beach camper registration/ranger station	\$ 15,000	Program support costs			\$ 5,000
14	Redesign Bayside campground for 40-car campsites	\$500,000				
14	Provide Bayside bathhouse	\$ 50,000				
14	Provide boardwalks for causeway area	\$ 30,000				
16	Upgrade/winterize North Beach bathhouse	\$ 25,000	Program support costs			\$ 2,000
17	Provide 40-site Bayside picnic area	\$ 28,000				
18	Construct Bayside crabbing access trail and boardwalk	\$ 3,850				
19	Construct North Beach screened amphitheater	\$ 80,000	Seasonal laborer	WG-3	0.3	\$ 3,300
			Seasonal park naturalist	GS-4	0.3	\$ 3,300
			Program support costs			\$ 1,000
20	Complete headquarters landscaping	\$ 50,000	Landscape helper	WG-4	0.5	\$ 5,800
22	Construct boat-in site on Great Egging Island	\$ 3,000	Seasonal laborer	WG-3	0.3	\$ 3,300
			Seasonal park ranger	GS-4	0.4	\$ 4,400
			Program support costs			\$ 3,000

TABLE 3 (cont.)

MARYLAND			STAFFING REQUIREMENTS			
PRIORITY	PROJECT	COST ESTIMATE	TITLE	GRADE	WORK YEARS	AMOUNT
23	Construct north end 50-car parking area	\$ 25,000	Seasonal laborer	WG-3	0.2	\$ 2,200
			Seasonal park ranger	GS-4	0.3	\$ 3,300
23	Provide north end access road	\$ 165,000	Program support costs			\$ 3,000
13	Provide Bayside equipment rental facility	\$ 20,000				
MARYLAND TOTAL		\$4,842,150				
VIRGINIA						
6	Realign access road	\$ 165,000				
7	Construct new bathhouse and picnic area	\$ 64,000				
1	Remove existing bathhouse	\$ 10,000				
***	Remove dome and amphitheater	\$ 2,000				
***	Construct new 400-car parking area, access road, bathhouse, bus rider shelter, beach access trails, and boardwalks (replace 400 existing)	\$ 302,400	Seasonal lifeguard	GS-4	0.4	\$ 4,400
			Seasonal park ranger	GS-4	0.3	\$ 3,300
			Seasonal laborer	WG-3	0.2	\$ 2,200
			Program support costs			\$ 2,000
21	Stabilize Assateague Beach Coast Guard station complex	\$ 345,000	Seasonal park naturalist	GS-4	0.3	\$ 3,300
			Program support costs			\$ 1,000
VIRGINIA TOTAL		\$ 888,400				

*** Indefinite - dependent upon FWS programming.

TABLE 4: SCHEDULE FOR OTHER PROPOSED MANAGEMENT ACTIONS

Action	FY Needed
Recreation/Natural Impacts Study	1981
Comprehensive Design: North Beach Developed Area Improvements	1982
Comprehensive Design: Headquarters/Visitor Center	1982
Comprehensive Design: North Beach Drive Realignment	1983
Comprehensive Design: North End Access Improvements	1983
Comprehensive Design: Bayside Developed Area Improvements	1983
Comprehensive Design: Toms Cove Hook Access Road Realignment and Improvements	1982
Comprehensive Design: Utility Relocation (power line burial)	1982
Historic Structure Report: Assateague Beach Coast Guard Station (including construction drawings for proposed adaptive modifications)	1982
Archeological Survey	1984

APPENDIXES

- A: Legislation
- B: Compliance Documentation
- C: Memorandum of Understanding
- D: Programmatic Memorandum of Agreement

APPENDIX A: LEGISLATION



Public Law 89-195
89th Congress, S. 20
September 21, 1965

An Act

79 STAT. 824

To provide for the establishment of the Assateague Island National Seashore in the States of Maryland and Virginia, and for other purposes:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That for the purpose of protecting and developing Assateague Island in the States of Maryland and Virginia and certain adjacent waters and small marsh islands for public outdoor recreation use and enjoyment, the Assateague Island National Seashore (hereinafter referred to as the "seashore") shall be established and administered in accordance with the provisions of this Act. The seashore shall comprise the area within Assateague Island and the small marsh islands adjacent thereto, together with the adjacent water areas not more than one-half mile beyond the mean high waterline of the land portions as generally depicted on a map identified as "Proposed Assateague Island National Seashore, Boundary Map, NS-AI-7100A, November, 1964", which map shall be on file and available for public inspection in the offices of the Department of the Interior.

Assateague Island National Seashore, Md.-Va. Establishment.

SEC. 2. (a) Within the boundaries of the seashore, the Secretary of the Interior (hereinafter referred to as the "Secretary") is authorized to acquire lands, waters, and other property, or any interest therein, by donation, purchase with donated or appropriated funds, exchange, or in such other method as he may find to be in the public interest. The Secretary is authorized to acquire, by any of the above methods, not to exceed ten acres of land or interests therein on the mainland in Worcester County, Maryland, for an administrative site. In the case of acquisition by negotiated purchase, the property owners shall be paid the fair market value by the Secretary. Any property or interests therein owned by the States of Maryland or Virginia shall be acquired only with the concurrence of such owner. Notwithstanding any other provision of law, any Federal property located within the boundaries of the seashore and not more than ten acres of Federal property on the mainland in Worcester County, Maryland, may, with the concurrence of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for purposes of the seashore.

Acquisition of lands, etc.

(b) When acquiring lands by exchange, the Secretary may accept title to any non-Federal property within the boundaries of the seashore and to not more than ten acres of non-Federal property on the mainland in Worcester County, Maryland, and convey to the grantor of such property any federally owned property under the jurisdiction of the Secretary which he classifies as suitable for exchange or other disposal, and which is located in Maryland or Virginia. The properties so exchanged shall be approximately equal in fair market value, but the Secretary may accept cash from or pay cash to the grantor in order to equalize the values of the properties exchanged.

Exchange of properties.

(c) The Secretary is authorized to acquire all of the right, title, or interest of the Chincoteague-Assateague Bridge and Beach Authority, a political subdivision of the State of Virginia, in the bridge constructed by such authority across the Assateague Channel, together with all lands or interests therein, roads, parking lots, buildings, or other real or personal property of such authority, and to compensate the authority in such amount as will permit it to meet its valid outstanding obligations at the time of such acquisition. Payments by the Secretary shall be on such terms and conditions as he shall consider to be in the public interest. Any of the aforesaid property outside the

Bridge acquisition.

Noncommercial
residency and
hunting.

"Improved prop-
erty."

Bridge construc-
tion costs.
Compensation to
Maryland.

Publication in
Federal Register.

boundaries of the national seashore, upon acquisition by the Secretary, shall be subject to his administration for purposes of the seashore.

(d) Owners of improved property acquired by the Secretary may reserve for themselves and their successors or assigns a right of use and occupancy of the improved property for noncommercial residential purposes or for hunting purposes, as hereinafter provided, for a term that is not more than twenty-five years. In such cases, the Secretary shall pay to the owner of the property the fair market value thereof less the fair market value of the right retained by such owner: *Provided*, That such use and occupancy shall be subject to general rules and regulations established by the Secretary with respect to the outward appearance of any buildings on the lands involved. The term "improved property" as used in this Act shall mean (1) any single-family residence the construction of which was begun before January 1, 1964, and such amount of land, not in excess of three acres, on which the building is situated as the Secretary considers reasonably necessary to the noncommercial residential use of the building, and (2) any property fronting on the Chincoteague Bay or Sinepuxent Bay, including the offshore bay islands adjacent thereto, that is used chiefly for hunting and continues in such use: *Provided*, That the Secretary may exclude from improved properties any marsh, beach, or waters, together with so much of the land adjoining such marsh, beach, or waters as he deems necessary for public use or public access thereto.

SEC. 3. (a) If the bridge from Sandy Point to Assateague Island is operated by the State of Maryland as a toll-free facility, the Secretary is authorized and directed to compensate said State in the amount of two-thirds of the cost of constructing the bridge, including the cost of bridge approaches, engineering, and all other related costs, but the total amount of such compensation shall be not more than \$1,000,000; and he is authorized to enter into agreements with the State of Maryland relating to the use and management of the bridge.

(b) The State of Maryland shall have the right to acquire or lease from the United States such lands, or interests therein, on the island north of the area now used as a State park as the State may from time to time determine to be needed for State park purposes, and the Secretary is authorized and directed to convey or lease such lands, or interests therein, to the State for such purposes upon terms and conditions which he deems will assure its public use in harmony with the purposes of this Act. In the event any of such terms and conditions are not complied with, all the property, or any portion thereof, shall, at the option of the Secretary, revert to the United States in its then existing condition. Any lease hereunder shall be for such consideration as the Secretary deems equitable; and any conveyance of title to land hereunder may be made only upon payment by the State of such amounts of money as were expended by the United States to acquire such land, or interests therein, and upon payments of such amounts as will reimburse the United States for the cost of any improvements placed thereon by the United States, including the cost to it of beach protection: *Provided*, That reimbursement for beach protection shall not exceed 30 per centum, as determined by the Secretary, of the total cost of the United States of such protection work.

SEC. 4. When the Secretary determines that land, water areas, or interests therein within the area generally depicted on the map referred to in section 1 are owned or have been acquired by the United States in sufficient quantities to provide an administrable unit, he shall declare the establishment of the Assateague Island National Seashore by publication of notice thereof in the Federal Register. Such notice shall contain a refined description or map of the boundaries of the seashore as the Secretary may find desirable, and the exterior

September 21, 1965

- 3 -

Pub. Law 89-195

79 STAT. 826

boundaries shall encompass an area as nearly as practicable identical to the area described in section 1 of this Act.

SEC. 5. The Secretary shall permit hunting and fishing on land and waters under his control within the seashore in accordance with the appropriate State laws, to the extent applicable, except that the Secretary may designate zones where, and establish periods when, no hunting or fishing shall be permitted for reasons of public safety, administration, fish or wildlife management or public use and enjoyment: *Provided*, That nothing in this Act shall limit or interfere with the authority of the States to permit or to regulate shellfishing in any waters included in the national seashore: *Provided further*, That nothing in this Act shall add to or limit the authority of the Federal Government in its administration of Federal laws regulating migratory waterfowl. Except in emergencies, any regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate State agency responsible for hunting and fishing activities. The provisions of this section shall not apply to the Chincoteague National Wildlife Refuge.

Hunting and fishing provisions.

SEC. 6. (a) Except as provided in subsection (b) of this section, the Secretary shall administer the Assateague Island National Seashore for general purposes of public outdoor recreation, including conservation of natural features contributing to public enjoyment. In the administration of the seashore and the administrative site the Secretary may utilize such statutory authorities relating to areas administered and supervised by the Secretary through the National Park Service and such statutory authority otherwise available to him for the conservation and management of natural resources as he deems appropriate to carry out the purposes of this Act.

Administration.

(b) Notwithstanding any other provision of this Act, land and waters in the Chincoteague National Wildlife Refuge, which are a part of the seashore, shall be administered for refuge purposes under laws and regulations applicable to national wildlife refuges, including administration for public recreation uses in accordance with the provisions of the Act of September 28, 1962 (Public Law 87-714; 76 Stat. 653).

SEC. 7. (a) In order that suitable overnight and other public accommodations on Assateague Island will be provided for visitors to the seashore, the Secretary shall select and set aside one or more parcels of land in Maryland having a suitable elevation in the area south of the island terminus of the Sandy Point-Assateague Island Bridge, the total of which shall not exceed six hundred acres, and the public use area on the Chincoteague National Wildlife Refuge now operated by the Chincoteague-Assateague Bridge and Beach Authority of the Commonwealth of Virginia, and shall provide or allow the provision of such land fill within the areas selected as he deems necessary to permit and protect permanent construction work thereon: *Provided*, That the United States shall not be liable for any damage that may be incurred by persons interested therein by reason of the inadequacy of the fill for the structures erected thereon.

16 USC 460k-460k-4. Public accommodations. Land selection.

(b) Within the areas designated under subsection (a) of this section the Secretary shall permit the construction by private persons of suitable overnight and other public accommodations for visitors to the seashore under such terms and conditions as he deems necessary in the public interest and in accordance with the laws relating to concessions within the national park system.

Construction.

(c) The site of any facility constructed under authority of this section shall remain the property of the United States. Each privately constructed concession facility, whether within or outside of an area designated under subsection (a) of this section, shall be

mortgageable, taxable, and subject to foreclosure proceedings, all in accordance with the laws of the State in which it is located and the political subdivisions thereof.

(d) The Secretary shall make such rules and regulations as may be necessary to carry out this section.

(e) Nothing in this section shall be deemed to restrict or limit any other authority of the Secretary relating to the administration of the seashore.

Beach erosion
control, etc.

SEC. 8. The Secretary of the Interior and the Secretary of the Army shall cooperate in the study and formulation of plans for beach erosion control and hurricane protection of the seashore; and any such protective works that are undertaken by the Chief of Engineers, Department of the Army, shall be carried out in accordance with a plan that is acceptable to the Secretary of the Interior and is consistent with the purposes of this Act.

Road construc-
tion and main-
tenance.

SEC. 9. (a) The Secretary of the Interior is authorized and directed to construct and maintain a road from the Chincoteague-Assateague Island Bridge to the area in the wildlife refuge that he deems appropriate for recreation purposes.

(b) The Secretary of the Interior is authorized and directed to construct a road, and to acquire the necessary land and rights-of-way therefor, from the Chincoteague-Assateague Island Bridge to the Sandy Point-Assateague Bridge in such manner and in such location as he may select, giving proper consideration to the purpose for which the wildlife refuge was established and the other purposes intended to be accomplished by this Act.

SEC. 10. The Secretary of the Interior is authorized to purchase from a public utility any facilities of that utility which are no longer of value to it as a result of the establishment of the Assateague Island National Seashore and shall pay for such facilities an amount equal to the cost of constructing such facilities less depreciation.

Appropriation
authorization.

SEC. 11. There are hereby authorized to be appropriated the sum of not more than \$16,250,000 for the acquisition of lands and interests in land and such sums as may be necessary for the development of the area authorized under this Act.

Approved September 21, 1965.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 893 accompanying H. R. 2071 (Comm. on Interior & Insular Affairs).

SENATE REPORT No. 331 (Comm. on Interior & Insular Affairs).

CONGRESSIONAL RECORD, Vol. 111 (1965):

June 17: Considered and passed Senate.

Sept. 7: Considered and passed House, amended, in lieu of H. R. 2071.

Sept. 15: Senate concurred in House amendment.

Public Law 94-578
94th Congress

An Act

Oct. 21, 1976
[H.R. 13713]

To provide for increases in appropriation ceilings and boundary changes in certain units of the National Park System, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

National Park
System.
Appropriation
ceilings increase;
boundary
changes.

TITLE I—ACQUISITION CEILING INCREASES

SEC. 101. The limitations on appropriations for the acquisition of lands and interests therein within units of the National Park System contained in the following Acts are amended as follows:

- (1) Arches National Park, Utah: section 7 of the Act of November 12, 1971 (85 Stat. 422), is amended by changing "\$125,000" to "\$275,000";
- (2) Assateague Island National Seashore, Maryland and Virginia: section 11 of the Act of September 21, 1965 (79 Stat. 824), as amended (16 U.S.C. 459f), is further amended by changing "\$21,050,000" to "\$22,400,000";
- (3) Buffalo National River, Arkansas: section 7 of the Act of March 1, 1972 (86 Stat. 44), is amended by changing "\$16,115,000" to "\$30,071,500";
- (4) Capitol Reef National Park, Utah: section 7 of the Act of December 18, 1971 (85 Stat. 739), is amended by changing "\$423,000" to "\$2,173,000";
- (5) Fire Island National Seashore, New York: section 10 of the Act of September 11, 1964 (78 Stat. 928), is amended by changing "\$16,000,000" to "\$18,000,000";
- (6) Gulf Islands National Seashore, Florida and Mississippi: section 11 of the Act of January 8, 1971 (84 Stat. 1967), is amended by changing "\$3,462,000" to "\$22,162,000";
- (7) Lincoln Home National Historic Site, Illinois: section 3 of the Act of August 18, 1971 (85 Stat. 347), is amended by changing "\$2,003,000" to "\$3,059,000";
- (8) Mesa Verde National Park, Colorado: section 3 of the Act of December 23, 1963 (77 Stat. 473), is amended by changing "\$125,000" to "\$193,233";
- (9) North Cascades National Park and Lake Chelan National Recreation Area, Washington: section 506 of the Act of October 2, 1968 (82 Stat. 926), is amended by changing "\$3,500,000" to "\$4,500,000";
- (10) Saint-Gaudens National Historic Site, New Hampshire: section 6 of the Act of August 31, 1964 (78 Stat. 749), is amended by adding a new sentence as follows: "For the acquisition of lands or interest therein, there is authorized to be appropriated not to exceed \$80,000.";
- (11) Scotts Bluff National Monument, Nebraska: section 3 of the Act of June 30, 1961 (75 Stat. 148), is amended by changing "\$15,000" to "\$145,000";
- (12) Canyonlands National Park, Utah: section 8 of the Act of September 12, 1964 (78 Stat. 934) as amended (85 Stat. 421) is further amended by changing "\$16,000" to "\$104,500"; and

(13) Padre Island National Seashore, Texas: section 8 of the Act of September 28, 1962 (76 Stat. 650) is amended by changing " \$5,000,000 " to " \$5,350,000 ". 16 USC 459d-7.

TITLE II—DEVELOPMENT CEILING INCREASES

SEC. 201. The limitations on appropriations for development of units of the National Park System contained in the following Acts are amended as follows:

(1) Andrew Johnson National Historic Site, Tennessee: section 3 of the Act of December 11, 1963 (77 Stat. 350), is amended by changing " \$66,000 " to " \$266,000 "; 16 USC 461 note.

(2) Arkansas Post National Memorial, Arkansas: section 3 of the Act of July 6, 1960 (74 Stat. 334), as amended (80 Stat. 339), is further amended by changing " \$350,000 " to " \$2,750,000 "; 16 USC 431 note.

(3) Chamizal National Memorial, Texas: section 5 of the Act of June 30, 1966 (80 Stat. 232), is amended by changing " \$2,060,000 " to " \$5,063,000 "; 16 USC 431 note.

(4) Fort Larned National Historic Site, Kansas: section 3 of the Act of August 31, 1964 (78 Stat. 748), is amended by changing " \$1,273,000 " to " \$4,273,000 "; 16 USC 461 note.

(5) Golden Spike National Historic Site, Utah: section 3 of the Act of July 30, 1965 (79 Stat. 426), is amended by changing " \$1,168,000 " to " \$5,422,000 "; 16 USC 461 note.

(6) Jefferson National Expansion Memorial National Historic Site, Missouri: section 4 of the Act of May 17, 1954 (68 Stat. 98), as amended (16 U.S.C. 450jj), is further amended by changing " \$23,250,000 " to " \$32,750,000 "; 16 USC 450jj note.

(7) Saint Gaudens National Historic Site, New Hampshire: section 6 of the Act of August 31, 1964 (78 Stat. 749), is amended by changing " \$210,000 " to " \$2,677,000 "; 16 USC 461 note.

(8) Vicksburg National Military Park, Mississippi: section 3 of the Act of June 4, 1963 (77 Stat. 55), is amended by changing " \$2,050,000 " to " \$3,850,000 "; 16 USC 430h-5.

(9) Channel Islands National Monument, California: paragraph (1) of section 201 of the Act of October 26, 1974 (88 Stat. 1445, 1446), is amended by changing " \$2,936,000 " to " \$5,452,000 "; and

(10) Nez Perce National Historical Park, Idaho: section 7 of the Act of May 15, 1965 (79 Stat. 110) is amended by changing " \$1,337,000 " to " \$4,100,000 ". 16 USC 281f.

TITLE III—MISCELLANEOUS PROVISIONS

SEC. 301. The Act of September 21, 1965 (79 Stat. 824), as amended (16 U.S.C. 459f), providing for the establishment of the Assateague Island National Seashore in the States of Maryland and Virginia, is further amended by repealing sections 7 and 9 in their entirety, and by adding the following new section 12: Repeal. 16 USC 459f-6, 459f-8.

"SEC. 12. (a) Within two years of the date of enactment of this section, the Secretary shall develop and transmit to the Committees on Interior and Insular Affairs of the Senate and the House of Representatives a comprehensive plan for the protection, management, and use of the seashore, to include but not be limited to the following considerations: Comprehensive plan, transmittal to congressional committees. 16 USC 459f-11.

"(1) measures for the full protection and management of the natural resources and natural ecosystems of the seashore;

"(2) present and proposed uses of the seashore and the lands and waters adjacent or related thereto, the uses of which would reasonably be expected to influence the administration, use, and environmental quality of the seashore;

"(3) plans for the development of facilities necessary and appropriate for visitor use and enjoyment of the seashore, with identification of resource and user carrying capacities, along with the anticipated costs for all proposed development;

"(4) plans for visitor transportation systems integrated and coordinated with lands and facilities adjacent to, but outside of, the seashore; and

"(5) plans for fostering the development of cooperative agreements and land and resource use patterns outside the seashore which would be compatible with the protection and management of the seashore.

"(b) Notwithstanding any other provision of law, no Federal loan, grant, license, or other form of assistance for any project which, in the opinion of the Secretary would significantly adversely affect the administration, use, and environmental quality of the seashore shall be made, issued, or approved by the head of any Federal agency without first consulting with the Secretary to determine whether or not such project is consistent with the plan developed pursuant to this section and allowing him at least thirty days to comment in writing on such proposed action."

Publication in
Federal Register.

Land acquisition.

Appropriation
authorization.

16 USC 431 note.

SEC. 302. (a) The Secretary of the Interior is authorized to designate by publication of a map or other boundary description in the Federal Register certain areas of scenic, historic, and geological significance including portions of No Thorougfare Canyon and Red Canyon, but not to exceed two thousand eight hundred acres, for addition to Colorado National Monument, Colorado. Within the areas so designated the Secretary may acquire lands and interests therein by donation, purchase with donated or appropriated funds, or exchange. Property so acquired and any Federal property so designated shall thereupon become part of the Colorado National Monument, subject to the laws and regulations applicable to the monument.

(b) There is authorized to be appropriated not to exceed \$460,000 for the acquisition of lands and interests therein.

SEC. 303. Section 4 of the Act approved August 31, 1965 (79 Stat. 588), as amended (87 Stat. 456), providing for the commemoration of certain historical events in the State of Kansas, is further amended by changing "\$1,420,000" to "\$2,000,000".

SEC. 304. (a) In order to facilitate the administration of certain areas of the National Park System located in Montgomery County, Maryland, the Secretary of the Interior (hereafter in this Act referred to as the "Secretary") may transfer, without monetary reimbursement, to the jurisdiction of the Director of the National Park Service in Montgomery County, Maryland, as set forth in the drawing entitled "Transfer of Land for Washington Aqueduct Shops and Storehouse Projects", numbered 40.1-103.3-1, and dated January 30, 1970 (a copy of which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior), and which the Secretary of the Army has had use of under a permit dated March 5, 1965, issued by the Director of the National Park Service.

NOTE: Pages 2735-2741 of this Act are not included.

Approved October 21, 1976.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 94-1162 (Comm. on Interior and Insular Affairs).

SENATE REPORT No. 94-1158 (Comm. on Interior and Insular Affairs).

CONGRESSIONAL RECORD, Vol. 122 (1976):

June 8, considered and passed House.

Aug. 26, considered and passed Senate, amended.

Sept. 29, House concurred in certain Senate amendments and in others with amendments.

Oct. 1, Senate agreed to certain House amendments and to one with an amendment; House agreed to Senate amendment.

Note.—A change has been made in the slip law format to provide for one-time preparation of copy to be used for publication of both slip laws and the United States Statutes at Large volumes. Comments from users are invited by the Office of the Federal Register, National Archives and Records Service, Washington, D.C. 20408.

APPENDIX B: COMPLIANCE DOCUMENTATION



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
DELMARVA AREA OFFICE
1825 VIRGINIA STREET
ANNAPOLIS, MD 21401

TO: Ms. Mary Magee, National Park Service
Denver Service Center

FROM: Area Manager, Delmarva Area Office

SUBJ: Endangered Species Considerations for the General
Management for Assateague Island National Seashore

At your request, we have reviewed your March 1981 Draft General Management Plan for Assateague Island National Seashore in Maryland/Virginia and the joint NPS/FWS/MPS Assessment of alternatives (June 1978) in relation to requirements of Section 7 of the Endangered Species Act.

The 1978 Assessment of Alternatives does not adequately address either the importance of Assateague Island to endangered species (specifically the peregrine falcon and loggerhead sea turtle) or the potential impacts of the plan on these species. It is evident upon reading it, that it was never intended as a Biological Assessment of the type required by the Endangered Species Act. This is understandable since the Biological Assessment requirements came into being with the November 1978 Endangered Species Act Amendments (after the completion of this environmental assessment).

Although we see no need for rewriting the environmental assessment for this proposal, you should be aware of the following relevant information on the peregrine falcon and loggerhead turtle:

Peregrine Falcon

Assateague Island is a very important fall migration and stopover habitat for the peregrine. The National Wildlife Refuge's wash flats area is considered by Dr. F. Prescott Ward (a peregrine expert employed by the Aberdeen Proving Ground in Maryland) to be the most important peregrine fall migration habitat on the east coast of the United States and has been considered by the FWS for designation as critical habitat. Other sections of Assateague Island outside the refuge such as Fox Hill Level, the northern end of the island, Tom's Cove Hook, and the beach from Fox Hill Level south to the Virginia line are considered valuable peregrine habitat also. All of these areas are used extensively by feeding and resting peregrines during their fall migrations.

By means of aerial surveys Dr. W.S. Seegar (unpublished paper) has intensively observed peregrine falcon use along Virginia's oceanic coast. He compared peregrine use of the five major habitat types occurring on Assateague Island and determined that peregrines select and utilize primarily the sparsely vegetated wash flats and beaches. Because of the importance of unvegetated wash flats to the peregrines' hunting and feeding behavior, any succession or encroachment of vegetation over these flats adversely affects the peregrine.

Maintenance of the artificial dune system along the length of Assateague Island has allowed this succession to occur by preventing washover. Good peregrine habitat can be restored either by not preventing or repairing most of the breaks or washouts in the dune system or by active management (burning, brush-clearing, bulldozing, flooding, etc.) to retard vegetative succession.

Loggerhead Sea Turtle

The assessment provides a little more data concerning the loggerhead, but it is no longer accurate. The FWS has discontinued its attempt to increase the nesting population of these turtles on the National Wildlife Refuge by the transplantation of eggs.

In fact, aerial surveys of the Virginia coast have led researchers to conclude that the Virginia coast is relatively unimportant to loggerheads as nesting habitat (estimated 1-2 nests per year) and has little potential for increased use. On the other hand the shallow waters around the barrier islands (especially the bays and inlets) provide very important summer feeding habitat for this species and to a lesser extent for the Ridley sea turtle. Because jurisdiction over these species (when they are not on land) rests with the National Marine Fisheries Service, they should be contacted if there is potential for impacts to the turtles' feeding habitat.

Based on our review of your Draft General Management Plan, it is our conclusion that your proposal, especially its provision for ORV use and dune maintenance, will affect the peregrine falcon. However, the effect will be relatively minor provided that:

- 1) repair of dune breaks in your "natural zone" be kept to the absolute minimum necessary to protect essential structures.
- 2) ORV traffic is not significantly increased along the beach or flats.
- 3) there is no substantial increase in visitor facilities.

It is our understanding that your plan meets these provisions with the possible exception of (1) on which it is vague. Should the plan change or developments occur that would make it difficult to meet the above provisions, endangered species consultation should be initiated with this office.

Should you have any questions concerning this correspondence, please contact Andy Moser (FTS 922-4197) of my Endangered Species Staff.

John D Green

Mary Moser
National Park Service
Denver Service Center
P.O. Box 25287
Denver, Colo. 80225

Dear Mr. Moser:

This letter is in response to your telephone request for a consistency statement about the Assarague Island National Seashore Draft Management Plan. Maryland's Coastal Resources Division has reviewed the plan and has the following comments:

- 1) In general, the Draft Management Plan is consistent with the policies and objectives of Maryland's Coastal Zone Management Program, with one exception. We are not able to provide a full consistency determination on the section concerning wastewater treatment (p.80) for the following reasons:
 - A) On page 80 of the plan, you provide a brief discussion on wastewater treatment. This section talks about a separate study of alternatives for the treatment of wastewater. There is, however, no discussion of what those alternatives might be. Therefore, we feel the need for an alternative treatment system arises. Maryland's Coastal Zone Management Program should be given ample opportunity to participate in the alternative selection process through the A-95 Clearinghouse review process.
 - B) Further, Maryland's CMP document - Chapter III-D, states:
"It is State policy not to fund or authorize the construction of sewage treatment plants which are not consistent with the State's 208 Water Quality Management Plan." (Natural Resources Article 8-1402, 8-1405; Art. 43, Section 394).



JAMES B. COULTER
SECRETARY

LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
TIDEWATER ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS 21401

(301) 269-2784

September 30, 1981

Mary Magee
National Park Service
Denver Service Center
P.O. Box 25287
Denver, Colo. 80225

Dear Ms. Magee:

This letter is in response to your telephone request for a consistency statement about the Assateague Island National Seashore Draft Management Plan. Maryland's Coastal Resources Division has reviewed the plan and has the following comments:

- 1) In general, the Draft Management Plan is consistent with the policies and objectives of Maryland's Coastal Zone Management Program, with one exception. We are not able to provide a full consistency determination on the section concerning wastewater treatment (p80) for the following reasons:
 - A) On page 80 of the plan, you provide a brief discussion on wastewater treatment. This section talks about a separate study of alternatives for the treatment of wastewater. There is, however, no discussion of what those alternatives might be. Therefore, we feel if the need for an alternative treatment system arises, Maryland's Coastal Zone Management Program should be given ample opportunity to participate in the alternative selection process through the A-95 Clearinghouse review process.
 - B) Further, Maryland's CZMP document- Chapter III-D, states:
"It is State policy not to fund or authorize the construction of sewage treatment plants which are not consistent with the State's 208 Water Quality Management Plan." (Natural Resources Article 8-1402, 8-1405; Art. 43, Section 394).

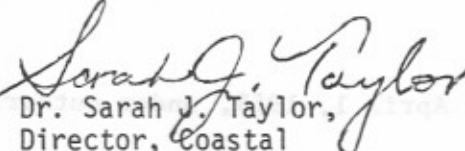
Mary Magee
September 30, 1981
Page 2

- C) Any alternative selected must comply with the Worcester County Comprehensive Water and Sewerage Plan as well as the State's 208 Water Quality Management Plan for the Ocean Coastal Basin. Both plans have a policy of:

"...no new direct surface discharges of treated wastewater nor increase of wasteloads beyond existing discharge permits will be allowed to the Coastal Bays." (208 Water Quality Management Plan for the Ocean Coastal Basin, P.I-8).

With this in mind we advocate the full cooperation and coordination of the National Park Service and Maryland's Coastal Zone Management Program on this issue.

Sincerely,


Dr. Sarah J. Taylor,
Director, Coastal
Resources Division

SJT:rrc

APPENDIX C: MEMORANDUM OF UNDERSTANDING

DEPARTMENT OF THE INTERIOR
MEMORANDUM OF UNDERSTANDING
BETWEEN

U.S. FISH AND WILDLIFE SERVICE AND NATIONAL PARK SERVICE

Pertaining to the Administration,
Development, and Use Of The
Tom's Cove Hook Area
Within the Chincoteague National Wildlife Refuge-
Assateague Island National Seashore

PART I

WHEREAS, the Chincoteague NWR on Assateague Island was established in 1943 for administration by the U.S. Fish and Wildlife Service under authority of the Migratory Bird Conservation Act, and

WHEREAS, on April 1, 1959, under authority of P.L. 85-57, the Fish and Wildlife Service entered into an agreement with the Chincoteague-Assateague Bridge and Beach Authority whereby certain refuge lands constituting what is known as Tom's Cove Hook were assigned to the Authority for the purpose of developing and operating a public beach and recreational facility. The deed of easement also provided for the construction and maintenance of a bridge and access road across the Chincoteague National Wildlife Refuge to the Tom's Cove Hook area, and

WHEREAS, P.L. 89-195 approved on 9/21/65, as amended; 16 U.S.C. 459f, provides for the establishment of Assateague Island National Seashore in the States of Maryland and Virginia, and

WHEREAS, Section 2(c) of P.L. 89-195 authorized the Secretary to acquire all of the right, title, or interest of the Chincoteague-Assateague Bridge and Beach Authority, in the bridge constructed by such Authority across the Assateague Channel, together with all lands or interests therein, roads, parking lots, buildings, or other real or personal property of such Authority, and such right, title, and interest have been acquired by the National Park Service, and

WHEREAS, certain lands and waters within the Virginia portion of Assateague National Seashore are subject to the rules and regulations of the National Park System contained in Title 36 CFR, and

WHEREAS, Section 6(b) of the same public law states "Notwithstanding any other provision of this Act, land and waters in the Chincoteague National Wildlife Refuge, which are a part of the seashore, shall be administered for refuge purposes under laws and regulations applicable to national wildlife refuges, including administration for public recreation uses in accordance with the provisions of the Act of September 28, 1962 (Public Law 87-714; 76 Stat. 653)." P.L. 87-714, known as the Refuge Recreation Act, reads in part: "...if such recreational opportunities are provided, to assure that any present or future recreational use will be compatible with, and will not prevent accomplishment of the primary purposes for which the said conservation areas were acquired or established, the Secretary of the Interior is authorized, as an appropriate incidental or secondary use, to administer such areas or parts thereof for public recreation when in his judgement public recreation can be an

appropriate incidental or secondary use: Provided, that such public recreation use shall be permitted only to the extent that is practicable and not inconsistent with other previous authorized Federal operations or with the primary objectives for which each particular area is established:...."

WHEREAS, by interim agreement dated October 21, 1966, between the Regional Directors of the Fish and Wildlife Service and National Park Service, the National Park Service assumed the assigned responsibilities of the Chincoteague-Assateague Bridge and Beach Authority, pending development and approval of a comprehensive master plan and completion of a subsequent Memorandum of Agreement between the two agencies.

WHEREAS, the 1976 Amendment to the National Wildlife Refuge System Administration Act (Pub. L. 94-223) states "...areas are hereby designated as the 'National Wildlife Refuge System' (referred to herein as the 'System'), which shall be subject to the provisions of this section, and shall be administered by the Secretary through the United States Fish and Wildlife Service." Subsequent solicitors' opinions, discussing the effects of Pub. L. 94-223, recognize the authority of the Fish and Wildlife Service to cooperate with other Federal agencies to carry out the Service's responsibilities on National Wildlife Refuges, and that the National Park Service may administer programs for public recreation and use in the Tom's Cove Hook area so long as these programs have the approval of the Fish and Wildlife Service, and

WHEREAS, since passage of P.L. 94-223 invalidated previous agreements between the Fish and Wildlife Service and the National Park Service for administration of the Tom's Cove Hook area, this area has been operated by the two agencies under a field Memorandum of Understanding dated June 23, 1976, between the Refuge Manager and the Seashore Superintendent.

WHEREAS, during the preparation of the comprehensive plan for the protection, management, and use of the seashore, as required by Pub. L. 94-578, alternatives for changes in management responsibilities for the National Park Service and the Fish and Wildlife Service on Assateague Island were studied and discarded by the Assistant Secretary of the Interior for Fish and Wildlife and Parks, resulting in a decision that each agency will maintain a role in the management of the Tom's Cove Hook area (as described below and depicted on a map attached), hereinafter referred to as the "Assigned Area" under a new Memorandum of Understanding to be completed in the summer of 1979.

"Assigned Area" -- The area bounded on the north by the wildlife fence adjacent to the main parking lot, on the east and south by the Atlantic Ocean extending to Fishing Point, and on the west by the waters of Tom's Cove to and along the canal in Swan Cove adjacent to the same main parking lot (see enclosed map).

NOW, THEREFORE, in consideration of and compliance with the foregoing legislative and executive directives, that within the "Assigned Area," it is mutually agreed that the National Park Service may, subject to approval of the Fish and Wildlife Service, assume the responsibility for the execution of items hereinafter described in this memorandum in PART II, the Fish and Wildlife Service will assume responsibility for the execution of items in PART III; and the two Services will jointly assume the responsibility for the items contained in PART IV:

PART II

THE NATIONAL PARK SERVICE will, in accordance with the Comprehensive plan, dated August 1979:

1. Provide and manage visitor contact and interpretive facilities and programs on a day-use basis for public recreation and interpretation including, but not limited to, swimming and associated beach uses, fishing, crabbing, and clamming.
2. Be responsible for road construction, and maintenance and for drafting all required construction permit applications.
3. Initiate temporary traffic closures at the entrance to the Tom's Cove Hook Area as necessary and inform Fish and Wildlife Service personnel when such closure is in effect.

4. Provide for the protection and safety of the visiting public including, but not limited to, law enforcement, motorist assistance, fire prevention/suppression, first aid, and protected beaches.
5. Issue special use permits for periods when the area is closed to public entry for activities including, but not limited to, overnight fishing and beach parties. Evening interpretive programs that extend beyond closing will be supervised by uniformed personnel who will assure that all participants clear the area upon termination of the program. Issue special permits for the hike-in camp site on refuge subject to clearance in advance from the refuge.
6. Maintain sand dunes in accordance with approved Departmental policy.
7. Be responsible for the maintenance of the fence delineating the north boundary of the main parking lot and that portion that serves as the ocean vehicle barrier.
8. Obtain concurrence from the Fish and Wildlife Service, through the Refuge Manager, prior to initiating planning for the expansion or modification of existing, or the development of additional, recreational, interpretive or support programs and facilities in order to assure compatibility with primary refuge objectives. Completed plans for such programs and facilities must be submitted through the Refuge Manager for approval by the Fish and Wildlife Service prior to implementation.

9. Be responsible for collection of entrance data and make such data available as needed for Fish and Wildlife Service Reports.
10. Be responsible for regular maintenance and litter control in the "Assigned Area."
11. Provide and maintain a system of signs in accordance with provisions of Part IV 4.
12. Offer for sale within the "Assigned Area" educational or interpretive items which are complimentary to the objectives of the Seashore and the Refuge or reinforce the goals of the two Services in accordance with the Fish and Wildlife Service policy on "Cooperating Associations." Photographic film may be sold if not available at sites within reasonable driving distance. The Regional Director of the Fish and Wildlife Service, or his designated agent, must approve all items offered for sale.
13. For those lands and waters subject to Title 36 CFR, both within and without the "Assigned Area", issue to qualified Fish and Wildlife Service personnel, upon request of the refuge manager, law enforcement commissions authorized pursuant to the Act of October 7, 1976 (Public Law 94-458; 16 U.S.C.). Enforcement activities under this provision will be in accordance with National Park Service policy and procedures.

14. Collect on behalf of the FWS appropriate user fees established for the "Assigned Area", under the authority of the Land and Water Conservation Fund Act of 1965 (as amended).

PART III

THE FISH AND WILDLIFE SERVICE will:

1. Publish all public use regulations pertaining to the Chincoteague National Wildlife Refuge (including the "Assigned Area") under Title 50 CFR, after consultation with the National Park Service. To the degree possible regulations and penalties governing the Maryland and Virginia portions of the Seashore shall be uniform.
2. Issue deputy commissions for the enforcement of Title 50 regulations to qualified National Park Service law enforcement personnel, who have been designated by the National Park Service for enforcement responsibilities in the "Assigned Area." All enforcement activities within the "Assigned Area" will be in accordance with Fish and Wildlife Service policies and procedures, under the authorities delegated to the Special Agent in Charge, District 11.
3. Retain primary responsibility for managing the wildlife resources within the "Assigned Area," with the understanding by both agencies that recreational use programs will be planned and carried out to minimize impacts on wildlife resources. The Fish and Wildlife

Service will consult with the National Park Service before carrying out wildlife management practices within the "Assigned Area" that might impact approved recreational programs.

4. Utilize the authorities of the Land and Water Conservation Fund Act to establish and administer an appropriate system for recreational user fees, recognizing that such fees are an effective management tool. Reimburse the National Park Service for any agreed upon costs incurred during collection of such fees.
5. Designate, away from the corrosive forces of the ocean front, a vehicle and/or equipment storage space for use by the National Park Service.
6. Be responsible for maintaining all stock fences within or bordering the "Assigned Area."
7. Be responsible for all research and photographic permits issued within the "Assigned Area", and inform the National Park Service of the conditions of such permits.

PART IV

THE NATIONAL PARK SERVICE and FISH AND WILDLIFE SERVICE will jointly:

1. Exchange copies of incident reports within 24 hours. Personnel of each agency will immediately notify the other agency about

incidents, problems, or violations of regulations observed or reported which affect the other agency. Neither agency will assume the responsibility to act on behalf of the other agency unless specifically requested to do so. This provision shall not preclude immediate response to emergencies by qualified personnel from either Service.

2. Provide the necessary personnel to assist in managing traffic closures initiated by either agency upon request, and for any emergency situation.
3. Permits issued by either agency shall be honored by the other for those uses that are authorized and for which the fees are consistent on both areas.
4. Prepare a sign plan that will meet the management needs of the "Assigned Area", without strict adherence to standard plans of either agency. Agency identification will not be indicated on signs except for the entrance sign at the bridge and at the entrance to the "Assigned Area", where both agencies will be given full recognition.
5. Share operational facilities and equipment to the extent practical.

Either agency may initiate a request for the temporary use of an item of equipment or a facility subject to recall, to meet the responsibilities of the controlling agency.

6. Coordinate the collection of public use statistics to meet the reporting format and dates of each agency.
7. Coordinate prior to publication or release all publications, leaflets, and/or news releases that pertain to the "Assigned Area." In appropriate cases, coordinate the use of joint publications and releases.
8. Develop working procedures to implement this Memorandum, such procedures to be decided cooperatively by the Seashore Superintendent and Refuge Manager and, as necessary for understanding and guidance of their respective staffs, jointly prepared as a written, signed directive as a supplement to this Memorandum. The Superintendent and Manager shall meet as necessary, but at least quarterly, to review working procedures and questions regarding compliance.

Should the Superintendent and Manager fail to reach agreement on working procedures, or questions of compliance, required to implement this Memorandum, the area of disagreement will be reviewed by the Fish and Wildlife Service Area Manager for resolution. If the Area Manager's decision on the dispute is not acceptable to the Superintendent or Manager, the matter will be referred to the respective Regional Directors for resolution.
9. Schedule an annual meeting, at a mutually acceptable time and place, of the Seashore Superintendent and Area Manager, along with appropriate staff, for a formal review of operations under this

Memorandum, including but not limited to compliance with conditions of the Memorandum and working procedures, problem areas, coordination of programs and plans for the next year, proposed amendments to the Memorandum, etc. Any areas of disagreement that cannot be resolved between the Superintendent and Area Manager shall be referred to the respective Regional Directors for resolution.

Mr. James W. Coleman, Jr.
Regional Director
Mid-Atlantic Region
National Park Service
143 S. Third Street
Philadelphia, PA 19103

Dear Mr. Coleman:

The Memorandum of Agreement for the Assateague Island National Seashore General Management Plan for Maryland and Virginia, has been ratified by the Chairman of the Council. This document constitutes the comments of the Council required by Section 106 of the National Historic Preservation Act and complies with the Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800). A copy of the Agreement is enclosed.

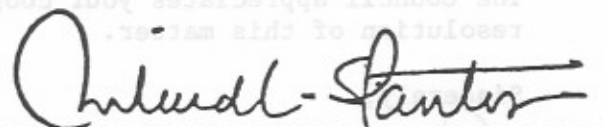
In accordance with Section 800.6(c)(2) and 800.9(e) of the regulations, a copy of this Memorandum of Agreement should be included in any environmental impact statement prepared for the project and should be retained in your records as evidence of compliance with Section 106 of the National Historic Preservation Act.

Date: October 19, 1979

Date: October 26, 1979



Regional Director
Northeast Region
U.S. Fish and Wildlife Service



Regional Director
Mid-Atlantic Region
National Park Service

Jordan E. Tannousian
Chief, Eastern Division
of Project Review

Enclosure

**Advisory
Council On
Historic
Preservation**

1522 K Street, NW
Washington, DC 20005

APR 16 1982

Mr. James W. Coleman, Jr.
Regional Director
Mid-Atlantic Region
National Park Service
143 S. Third Street
Philadelphia, PA 19105

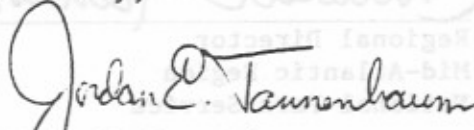
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The Memorandum of Agreement for the Assateague Island National Seashore General Management Plan for Maryland and Virginia, has been ratified by the Chairman of the Council. This document constitutes the comments of the Council required by Section 106 of the National Historic Preservation Act and completes compliance with the Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800). A copy of the Agreement is enclosed.

In accordance with Section 800.6(c)(2) and 800.9(e) of the regulations, a copy of this Memorandum of Agreement should be included in any environmental assessment or statement prepared for this undertaking to meet requirements of the National Environmental Policy Act and should be retained in your records as evidence of compliance with Section 106 of the National Historic Preservation Act.

The Council appreciates your cooperation in reaching a satisfactory resolution of this matter.

Sincerely,


Jordan E. Tannenbaum
Chief, Eastern Division
of Project Review

Enclosure

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

MEMORANDUM OF AGREEMENT

WHEREAS, the National Park Service (NPS), Mid-Atlantic Region, has submitted the General Management Plan (Plan) for the Assateague Island National Seashore in the States of Maryland and Virginia for review in accordance with the 1979 Programmatic Memorandum of Agreement among the Advisory Council on Historic Preservation (Council), NPS, and the National Conference of State Historic Preservation Officers; and,

WHEREAS, NPS has proposed measures to avoid or mitigate adverse effects of this Plan on properties eligible for or included in the National Register of Historic Places;

NOW, THEREFORE, it is mutually agreed that the Plan will be carried out in accordance with the Programmatic Memorandum of Agreement, NPS-28, and the following stipulation.

Stipulation

NPS will undertake its proposed archeological survey and evaluation program. Included will be a re-evaluation of the significance of known sites of ruined historic structures as archeological properties. The survey will be developed and conducted in consultation with the Maryland and Virginia SHPOs, and will take into account information from both SHPOs on known properties, previous surveys and other investigations performed in the area, and any recommendations they may have on appropriate survey methods. As part of this effort, the known shipwrecks located off the oceanside shore of Assateague Island will be evaluated to determine whether they meet National Register Criteria. NPS will obtain applicable Federal and State permits, as necessary, for any field investigations which might have an effect on such properties. Any of the identified properties under NPS jurisdiction that meet the Criteria will be managed in accordance with NPS-28. Public interpretation of any historic properties under exclusively State jurisdiction, including disclosure of locational information, will be done in consultation with the appropriate SHPO.

Robert Sawyer March 26, 1982
Executive Director
Advisory Council on Historic Preservation

James W. Coleman April 2, 1982
National Park Service
(date)

Advisory
Council On
Historic
Preservation

A. Bryan Mitchell (date) 4/7/82
Virginia State Historic Preservation
Officer

J. Mitchell (date) 4-6-82
Maryland State Historic Preservation
Officer

Alfred Aldrich (date) 4/13/82
Chairman
Advisory Council on Historic Preservation

NOW, THEREFORE, it is mutually agreed that the Plan will be carried out in accordance with the Programmatic Memorandum of Agreement, NPS-28, and the following stipulation.

Stipulation

NPS will undertake its proposed archaeological survey and evaluation program. Included will be a re-evaluation of the significance of known sites of ruined historic structures as archaeological properties. The survey will be developed and conducted in consultation with the Maryland and Virginia SHPOs, and will take into account information from both SHPOs on known properties, previous surveys and other investigations performed in the area, and any recommendations they may have on appropriate survey methods. As part of this effort, the known shipwrecks located off the ocean side shore of Assateague Island will be evaluated to determine whether they meet National Register Criteria. NPS will obtain applicable Federal and State permits, as necessary, for any field investigations which might have an effect on such properties. Any of the identified properties under NPS jurisdiction that meet the Criteria will be managed in accordance with NPS-28. Public interpretation of any historic properties under exclusively State jurisdiction, including disclosure of locational information, will be done in consultation with the appropriate SHPO.

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Executive Director
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James W. ...
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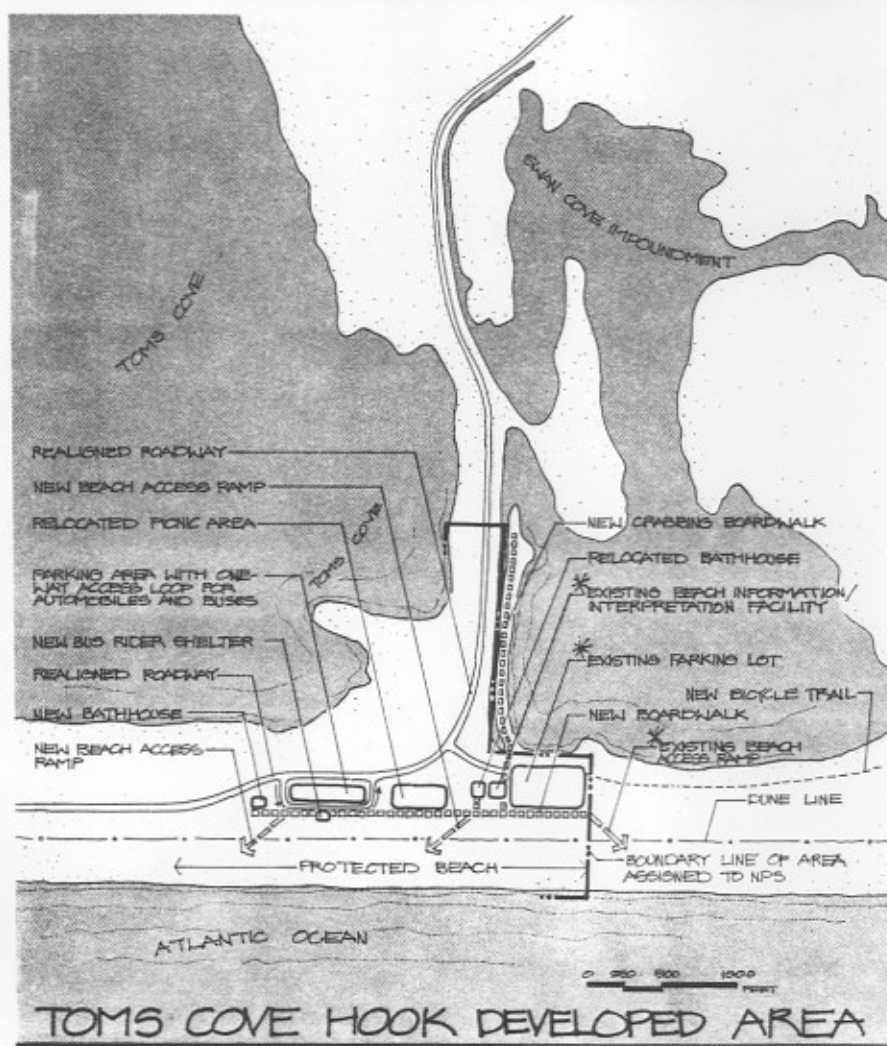
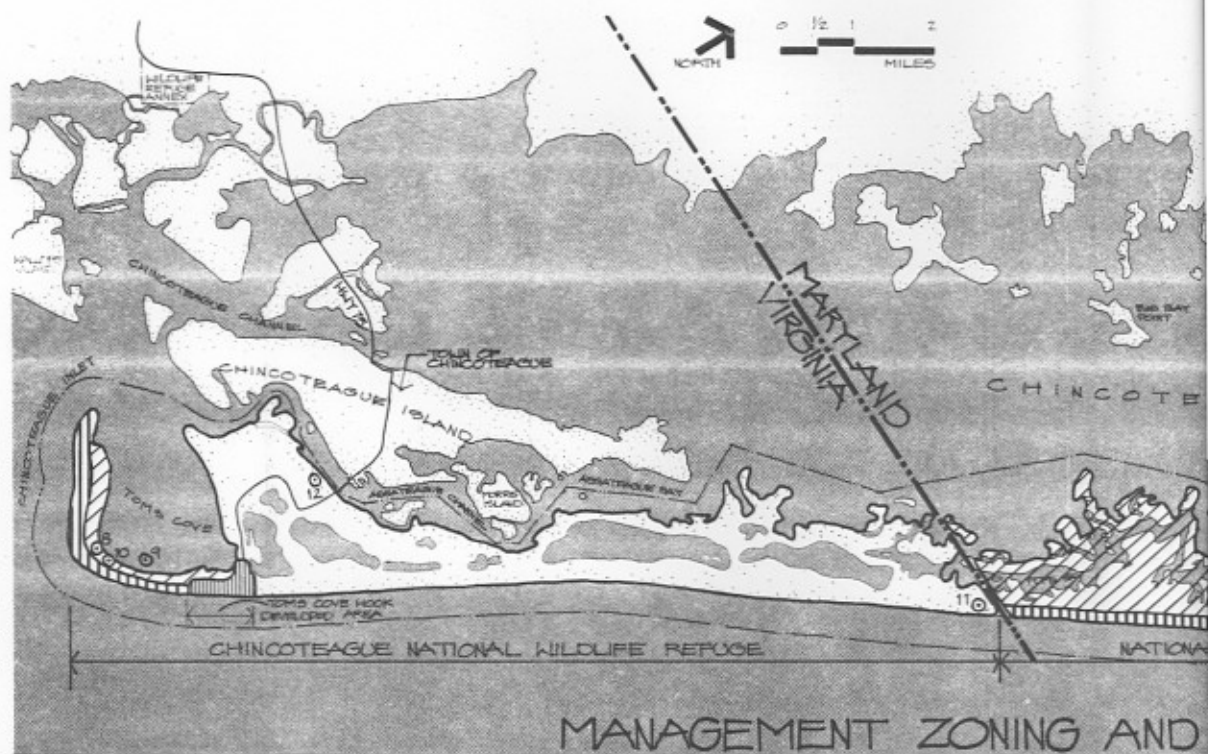
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general management plan

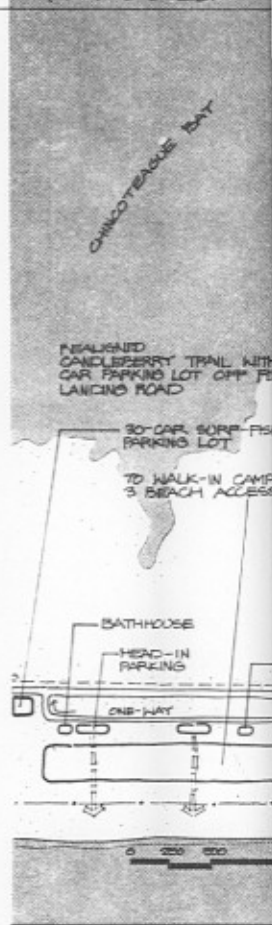
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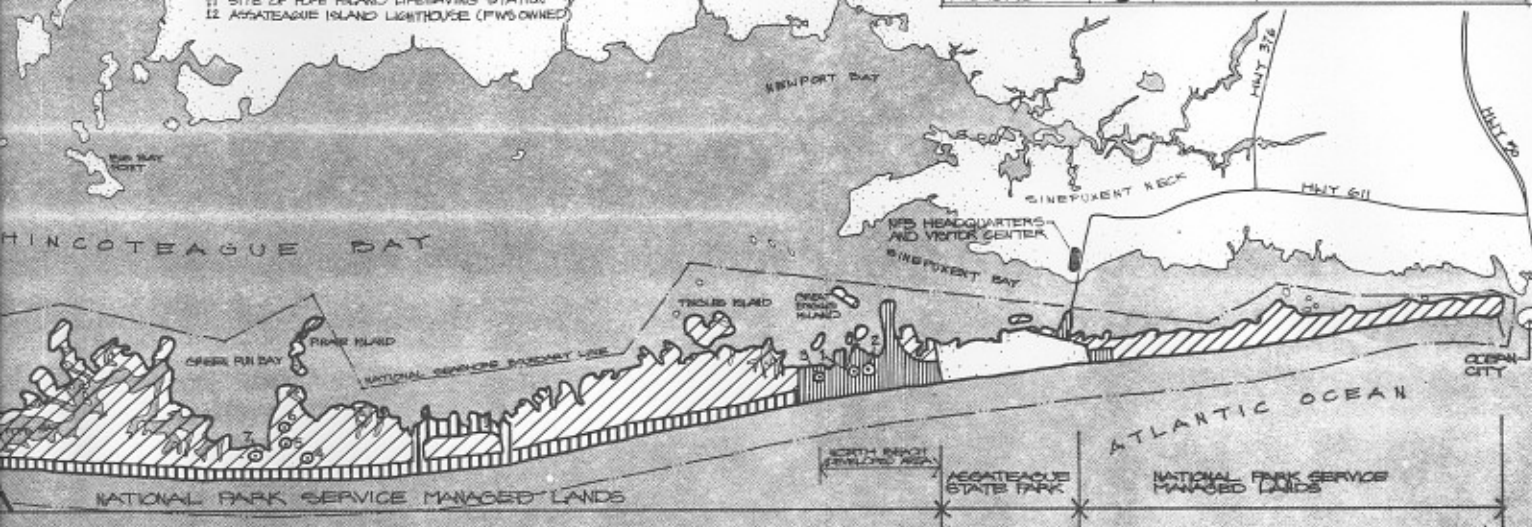


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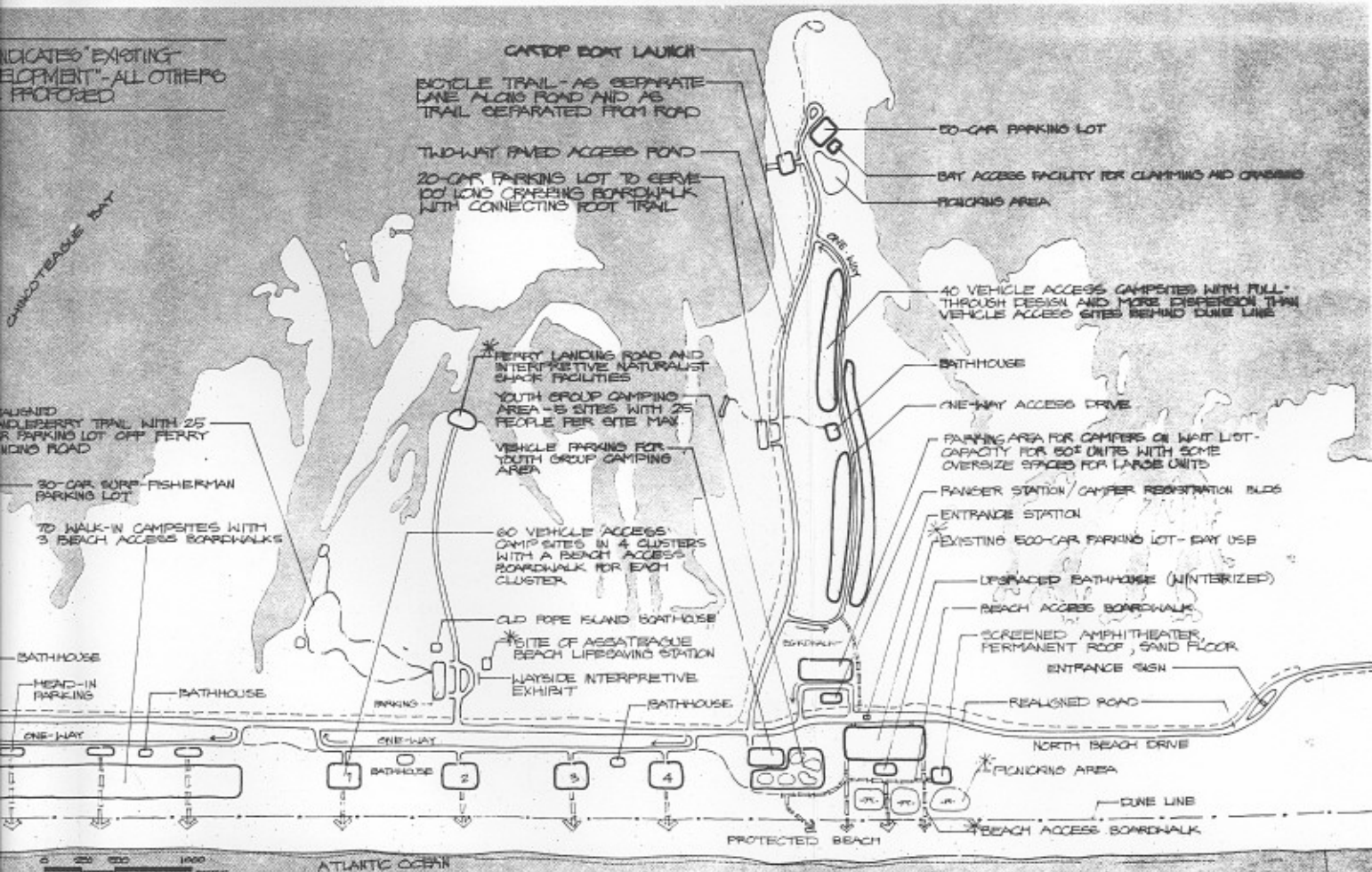
- 1 ROPE ISLAND BATHHOUSE
- 2 SITE OF NORTH BEACH LIFESAVING STATION
- 3 SITE OF BIRCH SALTPANS
- 4 SITE OF GREEN RUN INLET LIFESAVING STATION
- 5 SITE OF SCOTT'S OCEAN HOUSE
- 6 SITE OF GREEN RUN VILLAGE
- 7 GREEN RUN CEMETERY
- 8 ASSATEAGUE BEACH COAST GUARD STATION
- 9 RUINS OF SEABOARD OIL AND GUANO COMPANY FISH FACTORY
- 10 SITE OF COAHITT BROTHERS FISH FACTORY
- 11 SITE OF ROPE ISLAND LIFESAVING STATION
- 12 ASSATEAGUE ISLAND LIGHTHOUSE (FWS OWNED)

MANAGEMENT ZONING LEGEND

ZONE	SYMBOL	SUBZONE
NATURAL		PRIMITIVE
		TRADITIONAL RECREATION
DEVELOPMENT		GENERAL RECREATION/DEVELOPMENT
		ADMINISTRATIVE DEVELOPMENT
HISTORIC		HISTORIC (ALSO CULTURAL RESOURCE SITE)



MANAGEMENT AND CULTURAL RESOURCES NPS-OWNED OR MANAGED LANDS



NORTH BEACH DEVELOPED AREA